

who kindly walked to the spot, procured a bottle of the water, and furnished me with a brief description of the situation. It is about two miles from the above town, in a ploughed field, bordered by a branch of a marsh, well known in the District as the Cranberry Marsh. The farmer upon whose property it is, has a due appreciation of its importance, and has erected a shelter over it, built up the sides with stone, and looks forward to it as a source of vast profit at some future day; but the large proportion of free acid fully accounts for the deleterious effects imputed to it by some, and will preclude its employment as a spa, unless in a much more diluted form than when drawn from its source. In an analysis of the Tuscarora spring, published by Prof. Croft in the second vol. of the Journal, the presence of oil of vitriol is attempted to be accounted for by the slow oxidation of some sulphuret of iron. And in the paper of Mr. T. S. Hunt, the production of the acid is wholly unaccounted for, but the origin of the deposits of sulphate of lime in the Onondaga salt group, is referred to its action upon the calcareous strata. The presence in this mineral water of sulphuretted hydrogen, and both oxides of iron, together with the acid and the small quantity of lime, may be found to have some practical bearing upon their theories, by those gentlemen. To account for the production of sulphuric acid in the absence of all trace of volcanic action, would prove a boon to the scientific public, its artificial production being highly complicated, and the only natural source acknowledged (that I am aware of) being the above generation of it by sulphurous fires, and by the action of sulphurous acid on the easily reducible metallic oxides.

As I have no scales of sufficient delicacy for quantitative analysis, my examination was confined to a qualitative one as far as my humble resources and limited chemical skill would permit. The bottle, upon removing the cork, exhaled a strong odour of sulphuretted hydrogen, which in a few minutes pervaded the whole room. A strip of prepared lead paper was immediately blackened upon being introduced into the neck of the bottle. Specific gravity at 60° Fahr., 1014. Taste, intensely sour. A strip of litmus paper was instantly reddened, upon being dipped into the water; a gentle heat did not restore the color; the same effect produced after ebullition. Bubbles of gas were disengaged by heat. Chloride of barium throws down an abundant white precipitate of sulphate of barytes, insoluble in acids.—Sulphuric acid. Brown precipitate with nitrate of silver, from the sulphuret present. A portion allowed to stand with a solution of sulphate of copper in a corked flask, and filtered nitric acid added, solution of nitrate of silver produced no alteration. Hydrosulphuret of ammonia produces a very copious black precipitate. Ammonia, greenish dark precipitate, Iron. Oxalate of ammonia added to filtered water, gave a white, not abundant, precipitate, lime. The solution, filtered from the oxalate of lime, and solution of phosphate of soda, with ammonia dropped in, a white crystalline precipitate, was thrown down magnesia. Red prussiate of potash caused a deep blue precipitate, iron protoxide. Yellow prussiate of potash very pale blue precipitate, rapidly becoming blue, iron protoxide chiefly. Some of the water having been con-

centrated by boiling, the sesquioxide of iron, lime, &c., were precipitated by solution of carbonate of ammonia, the water then filtered, evaporated to dryness, and ignited in a porcelain crucible, much blackening took place, indicating carbonaceous matter. The calcined residue was digested with distilled water, treated with acetate of baryta, filtered, evaporated, and again ignited in a platina crucible, distilled water being poured into the crucible, a portion of the resulting solution was tested with tartaric acid, no precipitate; hydrofluosilicic acid, no precipitate; alcoholic solution of chloride of platina, no precipitate. A few drops of hydrochloric acid, mixed with some of the solution, and alcohol being added and inflamed, a violet tinge was perceptible.

St. Catharines, May 4, 1849.

PRACTICE OF MEDICINE AND PATHOLOGY.

Analysis of the Fluids in Cholera.—M. Pelouse, at the sitting of the Paris Academy of Sciences, on the 12th of February last, communicated the results of the chemical analysis of the fluids of cholera patients. These analyses were made at Lille, by Dr Corenwinder.

The object of these analyses was to ascertain the precise amount of albumen and common salt contained in the fluids; and for this purpose the liquid of the stools, the blood, and the fluid matter taken from the intestines after death, were each investigated.

The liquid of the stools was found to be either altogether wanting in album, or to contain it in but small quantities. Three analyses gave the following results:—

	Albumen.	Common salt.	Water.
1 . . .	0.28 . . .	0.384 . . .	98.76
2 . . .	nil . . .	0.380 . . .	98.96
3 . . .	0.086 . . .	0.504 . . .	98.18

The fluids taken from the intestines furnished proportions of albumen varying from 1.5 to 2.2 per cent.

The following quantities of salt and of water were found in the blood taken from the body after death:—

	Chloride of sodium.	Water.
	0.185 . . .	75.330
	0.275 . . .	75.110
	0.212 . . .	75.110
	0.069 . . .	71.000

Lastly, the composition of the serum taken from the system during life was represented by the following numbers:—

Water . . .	87.000
Albumen . . .	9.558
Salt . . .	0.531

In examining the results of these experiments, M. Corenwinder draws from his investigations the following conclusions:—

A notable quantity of Albumen is found in the liquids of the intestines; very little dry matter, little or no albumen, and much common salt, in the liquids of the stools. The proportion of dry matter increases in the blood, and the quantity of salt suffers a variable diminution, up to one-fifth of the weight of the blood in its normal condition. Lastly, the composition of the serum does not suffer any notable variation.—*Med. Gaz. March 9th.*

Treatment of Malignant Cholera.—The following comparison of various modes of treating malignant cholera is taken from a review of several recent writings on this disease in the *Monthly Journal*, 1849:—

Blood-letting.—In reference to this, the evidence is conflicting. It has been employed with alleged benefit in all