we have just given. The best known of these springs are those of Varennes and Caledonia, which are feebly alkaline and pleasant to the taste. A spring at Chambly contains two thousandths of solid matter, of which one half is carbonate of soda, and another at Nicolet contains in a litre 1·135 grammes of alkaline carbonate, and only 0·423 grammes of chlorids. The proportion of potash in these mixed salts rarely rises above two or three-hundredths, but the alkalies of a spring at St. Ours, determined in the state of chlorides, give twenty-five hundredths of chloride of potassium. The water of this spring contains 0·53 grammes of solid matter in a litre, principally alkaline carbonates. All the waters of this class hold in solution silica, often in considerable quantity, and deposit by boiling, silicates of lime and magnesia, mixed with carbonates of these bases. Silica in a soluble form is always found even in the neutral saline waters.

With some few exceptions, the springs of these two classes rise from strata belonging to the lower silurian system, the waters of the limestones which form its base are generally neutral, while the springs which flow from the schists which cover these limestones are often alkaline.

Among the springs of the upper silurian rocks there are some neutral salines, and those of the acid waters, of which we have spoken in noticing the gypsums of Upper Canada. The analyses of four of these springs have furnished from 2·00 to 4·30 grammes of free sulphuric acid, and from 0·60 to 1·87 grammes of sulphate of iron, alumina, lime, magnesia, and alkalies to the litre. Of these acid waters that of Tuscarora is the best known and has a great reputation among the country people of the vicinity in the treatment of various diseases; all these acid springs contain a little sulphuretted hydrogen. Many of the springs of the silurian rocks are more or less sulphurous, but that of Charlotteville, which is upon the outcrop of the devonian strata contains in addition to a considerable amount of chlorides and sulphates, the large proportion of 32 cubic inches of sulphuretted hydrogen to the gallon.

The acid springs of which we have just spoken, as well as a great number of salines, evolve carburetted hydrogen gas, and often in considerable quantities. None of the springs of Canada as far as yet observed appear to merit the appellation of thermal.