QUEBEC.—ST. LOUIS GATE.—VIEW FROM THE ESPLANADE.

ST. LOUIS GATE, QUEBEC, CANADA.

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This gate is to be erected on the site of old St. Louis Gate. The style of architecture is adapted to harmonize as far as possible with the existing fortifications. It has a central roadway passage under a segmental arch for general traffic, and a semicircular archway on either side for foot passengers. These roadways and footways form with the fortification wall a continuous promenade. On the front and rear walls are embattled stone parapets corbelled outwards from the face of the walls, and on either end are stone steps leading to the city streets. The stone tower, with pyramidal dormered wooden roof, projects nearly two thirds outwards from the general face of the wall. Opening on the platforms are two corbelled stone turrets of horseshoe plan, one of them being covered with a slate and lead roof. We are indebted to the *American Architect and Building News* for the illustrations.

NEW MODE OF MANUFACTURING WHITE LEAD.—A German paper gives a new process of making white lead, which is described as follows : The molten lead is poured through an iron sieve into a tank filled with water. Hereby it is converted into threads of one-sixth of an inch in thickness, which are now placed in vats, each of which holds about 1,000 threads. Vinegar is now poured over the lead, and immediately drawn off again. Under the influence of the air and the vinegar adhering to the metal, the latter is oxidized. The vinegar is now poured into the vat and again drawn off, when it carries away the acetate formed on the surface of the metal in solution. After this process has been repeated a number of times, the vinegar has been transformed into a concentrated solution of basic acetate of lead, from which the carbonate may be prepared by the introduction of a current of heated carbonic acid gas. The supernatant liquid is—mixed with another quantity of vinegar—used again for the same process.