

Part II. is devoted to Locomotives and their parts, and contains chapters of great interest and value to the civil engineer. In this section train resistance, grade resistance, curve resistance, etc., are dealt with; also mile-train costs.

Part III. deals with railroad location, construction and betterment surveys, and, although it disposes of the whole matter in one hundred pages, yet, considering the limited space, the subject is well handled and clearly stated.

The Old Loyalist.—By A. R. Davis, C.E. Published by Wm. Briggs, Toronto, Ont. Size, 5 x 7, pp. 367; illustrated. Price, \$1.25.

The first chapter is descriptive of the rustic life of an old Loyalist family on the Bay of Quinte, and much that is contained in it gives the reader an idea of the class and type of the early settlers. The Clinton family and an old, faithful negro are the chief characters in the first fifteen chapters. The story of a black walnut box, the property of far-off connections of the Clintons, may be said to be the thread of the narrative in these chapters, interspersed by the social and amorous interchanges of the period of time which they cover. The frustration of the Fenian Raiders through the pluck of Squire Clinton and Curtis, his grandson, who were captured and imprisoned by the enemy, but were freed by the Attorney-General of the county, whom Curtis, the boy, sought out after his escape from the prison, so as to shed light on the trial which was being conducted for the murder of Jake Sullivan, the captain of the "Mayflower," and the ringleader of the raiders, who, in attempting to wreck vengeance on Quinte, the old negro, on account of the burning of his ship by the squire, fell from the pier on which he stood, calling for a boat to take him off, and was drowned. The arrival of Curtis on the morning of the trial was the providential saving of Quinte's neck, as on further investigation by the doctor and the Attorney-General, guided by Curtis, it was found that Sullivan, in falling from the pier, struck the head of a protruding bolt, which caused his death. By the utilizing of this evidence at the last moment, when the judge had finished charging the jury, the life of Quinte was prolonged. The ill-feeling toward the old negro descended to Horace Sullivan, the son of Jake, despite the facts which were clearly proven. Some time after the affair had blown over and the raid was a thing of the past, Horace Sullivan became engaged to Gertie Westwood, the squire's adopted daughter, who, although not in love with him, was willing to sacrifice her happiness for her parents, as her marriage to him would be the means of clearing off a mortgage on their estate. For interruption in his affairs Sullivan, Jr., pays Quinte a visit in the dead of night, and would have murdered him in cold blood but for the arrival of Gertie, who awoke with the feeling that Quinte was in trouble and calling for help, and hauling on some garments went down across the farm to the log cabin just in time to save his life. Again, however, he threatens her happiness. Leaving his district he goes contracting for work along a new railway line, and here meets Curtis, who was on the engineering and surveying staff. Some dispute arose between them as to the right proportion of work, and Sullivan refers to Curtis' family in a malicious and disrespectful manner, at which Curtis fells him with a blow right from the shoulder. Getting on his feet again, however, Sullivan, the cur as he was, brains Curtis with a rock, which all but killed him. The closing chapters may be said to be very satisfactory to the reader, as Horace Sullivan, through his licentious living and tyrannical disposition, became a thorough lunatic and disappears from the lake in an iron cage for the Kingston Asylum. Squire Clinton was knighted and redeemed his estate at the hammer, having attained vast riches, which were discovered in Virginia, the search of which was begun on the opening of the black walnut box, which Quinte had preserved for the family.

A. N. K.

PUBLICATIONS REVIEWED.

Waterworks Commissioners.—The report of the Waterworks Commissioners of the city of Erie, Pa., for 1907.

Report contains plan of Presque Isle settling basin, details of intake pipe, and cribs; also detailed plan of public swimming pool. Geo. C. Gensheimer, secretary.

Topographical Surveys.—The annual report for 1906-07 of the Topographical Surveys Branch, containing the report of the Surveyor-General, schedule of surveys, made from July 1st, 1906, to March 31st, 1907, report of twenty-two surveyors on their field work; list of D.L.S. examination papers. Size, 6 x 9, pp. 350.

Quebec Bridge Inquiry.—Being the report of the Royal Commission appointed to report on the Quebec Bridge disaster. Appendices Nos. 1 and 2 are not given in this volume. Thirty-seven plans accompany the report. Size, 6 x 9, pp. 210.

Lake Nipigon and Sturgeon Lake.—A report by W. H. Collins, of the Geological Survey Branch, Ottawa, on the section of North-western Ontario traversed by the G.T.P. Size, 6 x 9, pp. 30. Illustrated.

CATALOGUES AND CIRCULARS.

Storage Batteries.—The D. P. Battery Co., Limited, Lumford Mills, Bakewell, Eng., are distributing a catalogue describing their storage batteries. Besides giving a complete description of their batteries it also contains pages of information usually found in handbooks, instructions as to the care and operation of D. P. batteries. The booklet is completely indexed. Pages 50.

Roofing.—The Barrett Manufacturing Co., of New York, are distributing a booklet illustrating some of the newest large hotels that are roofed according to the Barrett specifications.

Concrete Blocks.—The Ideal Concrete Machinery Co., of London, Ont., are distributing a 30-page booklet containing copies of letters of commendation received from users of their machines.

Power Plant Equipment.—The John McDougall Caledonian Iron Works Co., Montreal, in Bulletin No. 105 describe their Erie City water-tube boiler, Economic tubular boiler, four-valve engines, high-speed direct-connected type Worthington boiler feed-pumps and impulse water wheels.

Incandescent Lamps.—The Sunbeam Incandescent Lamp Co., Toronto, Ont., are distributing a wall catalogue showing fifty different types of incandescent lamps, varying in power from $\frac{1}{2}$ C.P. to 150 C.P.

Mine Fans.—The Jeffrey Manufacturing Co., Columbus, Ohio, are sending out Catalogue No. 26, describing their mine fan and attachments for the complete ventilation of mine. The catalogue also contains a page of engineering formulæ used in calculation necessary in ventilation problems. Illustrated. Pages 30.

Mechanical Stokers.—The illustrated catalogues of the Jones Under-feed Stoker Co. is a splendid example of what a trade catalogue should be. Not only does it illustrate pictorially the Jones stoker, but diagrams, sections and drawings, are given, illustrating and explaining the apparatus and its installation so that the engineer may be able to judge for himself of its merits. The catalogue will be sent upon request.

Cableways.—The Lidgerwood Manufacturing Co., of New York, has just issued a new catalogue describing and illustrating Lidgerwood cableways and their many successful applications on great engineering works and for numerous other purposes where large quantities of materials have to be hoisted, conveyed and delivered with celerity and economy. Size, 8 x 11, pp. 170.

Moulders' Supplies.—The J. W. Paxon Co., of Philadelphia, Pa., are distributing Bulletin No. 18, covering information regarding their fleet of ocean and inland barges for carrying their own products. It also describes moulding sand, core sand, fire sand, gannister, fire clay, kaolin and mica schist as never described before. Core-making machines, wooden core boxes and rosin-grinders, core sand, sand blast machines and sand blast sand, as well as fluxings, alloys and partings for iron, brass and steel foundries are also mentioned.