

from the pen of Caniff Haight. Those who have read Mr. Haight's charming book, "Country Life in Canada Fifty Years Ago," will believe that these sketches are not only entertainingly, but truthfully written. The first pamphlet of the series is entitled "Before the Coming of the Loyalists," 24 pages, and the second under the title of "The Coming of the Loyalists," records the adventures of this swarm of pioneers in a most vivid manner in the compass of 20 pages. Mr. Haight has further sketches in preparation under the titles of "A Loyalist's Home," and "A Loyalist Township." These records should be treasured in every Canadian household, for they show of what stuff our forefathers were made, and explain the characteristics which have become so strongly stamped upon our national life. Published by Haight & Co., 28 Adelaide street east, Toronto.

Wm. T. Lancefield, Hamilton, Ont., is the enterprising publisher of what we hope will be a long continued series of "Canadian Historical Leaflets." One just issued is entitled, "Burlington Bay, Beach and Heights in History," by Mary Rose Holden, who goes over the events which have made this region so prominent a field of Canadian history since the time it was first visited by the adventurous French explorers. For an unknown period before the head of Lake Ontario was discovered by French pioneers it was a great meeting place of Indian tribes, and continued to be so down to its permanent occupation by the white settlers. In the war of 1812 Burlington Heights was an important fortified post, and it was from here that Col. Harvey set out near midnight on the 5th June, 1813, with 704 men to make his impetuous night attack on 3,500 Americans whom he routed and put to such confusion that they soon evacuated the whole Niagara Peninsula. The courage of this brave man saved the province of Ontario, as may be evident to those who have studied the events of the war. The author has done her work exceedingly well. Another leaflet of more than local interest is by J. H. Coyne, of St. Thomas, president of the Ontario Historical Society. Mr. Coyne reviews the progress of the arts and sciences during the present century, taking a brief survey of each field. Prof. Robt. Bell, of the Geological Survey of Canada, has contributed a very instructive paper in the current report of the Smithsonian Institution (1897) on the rising of the shores of James' Bay. It is well known that the waters of James' Bay are peculiarly shallow, and were it not for the channels cut through the bay by the large rivers there would be little use in any railway terminus at any port south of the main coast of Hudson Bay. This shallowness Dr. Bell attributes to a gradual rising of the land under and around James' Bay, and he points to the cuts in the "till" along the steep eastern shore and to the successive lines of driftwood, etc., above the highest tide levels in the comparatively flat western shores. Dr. Bell thinks this rising of the land is still going on, though at what average rate is not certain. The author's theory is controverted by other geologists, but he makes out a very strong case.

THE PRACTICAL MAN.

To Lessen Friction in Machinery.—Grind together black lead with four times its weight of tallow. Camphor is sometimes used, 7 lbs. to the hundredweight.

Sal ammoniac and iron shavings or filings make rust joints.

Tempering Liquid.—Saltpetre, sal ammoniac and alum, of each 2 oz., salt, 1½ lbs., soft water, 3 gallons. Never heat over cherry-red; draw no temper.

Put hard soap on lag screws, wood screws or any screw for wood. They will go in much easier.

Soldering or Tinning Acid.—Muriatic acid, 1 lb.; put into it all the zinc it will dissolve and 1 oz. of sal ammoniac, then it is ready for use.

To Soften Steel.—Cover with clay, heat to a cherry red in a charcoal fire, and let cool over night in the fire.

To Avoid Brittleness.—To avoid brittleness in soft, non-hardening steel, says C. H. Risdale, of the British Iron and Steel Institute, there should not be too high an initial temperature, nor should there be a "soaking" at a high temperature for a long time. Work should be continued down to red heat, but not to blue heat. If work has been continued unavoidably to near blue heat, there should be no chilling, but slow

cooling, and where possible, subsequent heating, if only for a short time, to cherry redness. Also there should be absence of jar or vibration while cooling through the blue heat.

Industrial Notes.

The Water Department, Montreal, wants a new \$55,250 pumping plant.

Bishop's College, Lennoxville, Que., will spend \$20,000 in new buildings.

A loan of \$10,000 was voted to the Durham, Ont., Furniture Co., Ltd., recently.

The Government of Newfoundland is about to appoint a permanent boiler inspector.

McGaw & Winnett are to spend \$100,000 in improving the Queen's Hotel, Toronto.

The by-law granting \$6,500 to the Toronto Rubber Shoe Company, at Port Dalhousie, Ont., was carried.

Sir William Van Horne and others have organized a company in Montreal to make a bug-poison called Helseper.

The Guelph, Ont., Pavement Co. is to lay 7 cement sidewalk in Aylmer, Ont., this season, at 11 cents per square foot.

J. Parks, F. R. Elliott, J. H. Elliott and E. Woodworth, Port George, N.S., have been incorporated as the Port George Canning Company, Ltd.

A new factory is to be built at once by Semmens & Evel, coffin builders, Hamilton, Ont. The building will be brick, 50 x 150 feet, three stories. Architects, W. & W. Stewart.

T. H. Tracy, Victoria, B.C., has prepared plans for water-works systems for Vancouver, B.C., \$100,000, and Nanaimo, B.C., \$45,000. Vancouver is considering the adoption of the Septic tank system of sewage disposal.

J. Samson, E. S. Spashett and J. E. O'Connor, Windsor, Ont., have been incorporated as the Windsor Bent Goods Co., Ltd.; capital, \$20,000; to make bent goods, hubs, spokes, etc.; chief place of business, Windsor, Ont.

The rolling mills in Guelph will be in operation again in a few weeks. The London Bolt & Hinge Works and C. Kloefer, Guelph, the new owners of the mill will each take one-third of the output and the remainder will be placed on the market. J. O. Jolley, Wilmington, Delaware, is to be superintendent.

J. Seymour, Brampton; F. A. Moore, Deer Park, Ont., and E. E. Slaght, W. J. Clark and T. McLaughlin, Toronto, have been incorporated as the Seymour Meter Company, Ltd., to make gas, water and electric meters and motors; capital, \$40,000; chief place of business, Toronto.

M. Williams, J. McBain, G. McLean, J. I. Johnston and R. Whiteman, Port Perry, Ont., have been incorporated as the Madison Williams Turbine Company, for the manufacture and sale of turbine water-wheels, sawmills and other machinery; capital, \$20,000.

T. W. Horn, Wm. Mackenzie, E. B. Osler, H. C. Hammond, W. D. Matthews, O. F. Rice and Fred Nicholls, Toronto, are the directors of the Luxfer Prism Co., Ltd., Toronto, whose capital has been increased to \$400,000. This increase in capital is necessary to meet the rapidly increasing business of the company.

The Woodstock, Ont., Cereal Co., Ltd., has been incorporated with a share capital of \$30,000. Head office, Woodstock; provisional directors of the company to be David Robert Rens, of Embro; Alfred Lee, of East Oxford; Gerald de Courcy O'Grady, John Horatio Neve and John White; objects to store, grind and deal in grain and feed, and to make bags, boxes and barrels.

A test of tar macadam roadway has been made in Hamilton, Ont., recently, and the city council has decided to extend this class of pavement rapidly. A by-law to set apart \$150,000 for this purpose was voted down, but the council will use the funds available for road building generally for this special purpose. About \$29,000 will be expended. This pavement can be laid in Hamilton for 65 cents per square yard,