

To Mr. S. J. Clarke, Superintendent of the Rocky Mountain Park, Banff, the writer's thanks are due for kindly affording him the use of an office.

To Mr. J. T. Child, Parks Engineer, also, thanks are extended for many courtesies.

NATURE OF THE PHOSPHATE DISCOVERY BY OFFICERS OF THE CONSERVATION COMMISSION.¹

The occurrence of rock phosphate of economic value near Butte, Montana,² at points some 200 miles south of the International boundary, was investigated and reported on by the United States Geological Survey between 1911 and 1914; the latest report being that of Stone and Bonnie, on the Elliston area referred to in the accompanying footnote. The possibility of the Montana beds extending north into Canada had frequently been suggested, but the northerly continuation of the series appeared to be interrupted south of the border by what is known as the Lewis overthrust, a major fault which has resulted in the over-riding of the phosphate-bearing Carboniferous (Pennsylvanian) series by a considerable thickness of later beds.

However, in order to ascertain whether a phosphate-bearing horizon did not possibly exist in beds of Pennsylvanian (Upper Carboniferous) age in Canada, the Commission of Conservation deputed Dr. F. D. Adams and Mr. W. J. Dick to proceed to Alberta and Montana, and if possible to correlate Pennsylvanian horizons of the Eastern Rocky Mountains with what has been termed the Phosphoria formation, in Montana.

These officers succeeded in finding phosphate at two points in the Rocky Mountain Park, within a few miles of Banff.

The more important of these finds was that of a piece of float phosphate (a boulder weighing about 30 pounds) in the bed of Forty-mile creek, about 2 miles northeast of Banff (see map).

¹ Particulars of the discovery have since appeared in a special Bulletin issued by the above Commission, entitled, "Discovery of Phosphate of Lime in the Rocky Mountains," by Dr. F. D. Adams and J. W. Dick.

² See Pardee, J. T., Bull. No. 530-H., U. S. Geol. Surv., 1912, pp. 20-27; Gale, H. S., Bull. No. 470, U. S. Geol. Surv., 1911, pp. 440-451; Stone, R. W., and Bonnie, C. A., Bull. No. 580-N., U. S. Geol. Surv., 1914.