THE CLAYS AND SHALES OF NOVA SCOTIA.

Memoir No. 16-E, issued by the Geological Survey Branch, Department of Mines, Ottawa, embodies the results of an investigation of Nova Scotian clays and shales carried on by Dr. Heinrich Ries, assisted by Mr. Joseph Keele. Certain portions of New Brunswick were also included in the survey.

The important clay and shale deposits are limited to the lower Carboniferous, the Millstone Grit, the Cial Measures, the Permian, and the Pleistocene. While few in number, these bodies are of large extent.

Of all the above-mentioned horizons, the Coal Measures comprise the most important clay and shale formations. Examination of these measures failed, incidentally, to reveal the presence of considerable quantities of fire clay. Generally, large bodies of clay and shale in north-eastern Cape Breton will yield common brick, face brick, and, in some cases, low-grade firebrick. From the Pictou shales and clays tile and brick of very fair quality are produced. In the Inverness field, on the west coast of Cape Breton, is found a particularly good clay that could be used for pressed brick, for fire brick, and for general stoneware manufacture. Its fusing point is about 3,000 deg. F. The body is from 18 inches to nearly three feet in thickness, and would have to be worked along with a 13-foot coal seam. It is highly plastic and possesses dense burning qualities. Common brick shale is found near the Port Hood colliery. Large exposures of tile and earthenware shale occur directly on tide water between Port Hood and Judique Harbour. No work has been done in this region.

The plastic, tough, red burning clays of the Pleistocene period are the basis of most of the present establishments. These industries are spread pretty well over the Province. Common brick is made largely for local demand, although from plants situated near tide water shipments are made to foreign countries.

Dr. Ries expresses the opinion that there is positive room for development. Between Ontario and Nova Scotia there are few pressed brick plants. Ontario produces more than 300,000,000 common brick, about 50,000,000 pressed brick, nearly 4,000,000 paving brick, and about 20,000,000 tiles. Quebec is credited with nearly 130,000,000 brick, and with a considerable quantity of tile.

Compared with these figures, Nova Scotia's output is small. The official returns for the year 1910 place the number of bricks manufactured at 21,305,500; and the number of feet of drain-tile at 974,819. It is probable that Montreal is the largest extra-Provincial consumer of Ontario's products. It is obvious, also, that Quebec is not producing on a scale sufficiently large to supply her own demands. Nor, for that matter, is New Brunswick.

Apart from the possibility of developing well-situated industries at strategic points on Nova Scotia's coastline, there are other fields to exploit. The Sydney and North Sydney iron and steel plants consume large quantities of fire brick. Fire brick made at Westville by the Intercolonial Coal Company is used satisfactorily in lining ladles. There are, however, presumably large deposits of fire clay near Shubenacadie and in the Musquodoboit Valley that, with the construction of the Musquodoboit Valley Railroad, will be given industrial value.

The opinion of an expert of Dr. Ries' standing commands attention. We have long been convinced that the clay industries of Nova Scotia would repay larger investment. The wide distribution of Dr. Ries' report should bring results.

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The report concludes with a highly instructive chapter on the origin and properites of clay, supplemented by a complete statement of the composition and fusing points of Seger cones, and by an exposition on the influence of the various chemical constituents.

It may be worth while mentioning that the photogravures are hardly up to the mark. This mars an otherwise excellent publication.

THE VALUE OF A BOOM.

The mining boom is an inherent part of the growth of the industry. Much as we may deplore its attendant evils, the boom appears to be necessary to the successful establishment of any mining camp. This applies more, of course, to the mining of the precious metals. Iron, coal, and the like, can be exploited without a rise of public temperature.

The Rossland boom, the Lake of the Woods fiasco, and, in later years, the Larder Lake and other excitements, illustrated very completely the disastrous consequences of inadequate publicity and the lack of clean professional talent. To these elements must be added the presence of unscrupulous vendors, visionary promoters, and a quite unsophisticated public.

Times and manners have changed. It is not easy to "do" the Canadian public to-day. Responsible publicists, having at heart their duty towards the nation, will not permit themselves to be used by the fakir. Every flotation must meet fair criticism. The subsidized press carries less and less weight.

Yet the fact remains that the normally constituted human being wishes to be in the fashion. If one camp or district happens to hold public interest, the investor is more easily persuaded to take a chance.

Nova Scotia gold mining started in the early 'sixties of last century. There was at the time a local effervescence, a disturbance that by no stretch of the imagination could be called a boom. Inordinate amounts of gold were won from small quantities of ore, particularly at Waverly, a small settlement near Halifax. As is nearly always the case, no provision was made for the future. The mining that was done was crude, mostly open-cast. The milling was, if one