

of judicious boring operations in the vicinity of Westminster and Vancouver, can only be conjectured by the experience at Bellingham Bay, which furnished one of the earliest examples of profitable coal mining on the Pacific Coast; the basin there and its rocks being continuous, it may be fairly inferred that the coal seams are so also.

Although coal has been found in very many localities north of the international boundary-line in the Tertiary delta of the Fraser, in only two instances have attempts been made, by sinking or boring, to prove the thickness of the seams at depths where they would be uninfluenced by atmospheric weathering, and in both instances without adequate capital—at Coal Harbor (Vancouver) by a boring, and at Sumas Mountain by an incline. The results, so far as they go, are by no means discouraging.

The conditions now existing, which justify prospecting by boring operations, and mining lignite for local use, are its cheapness, and a local market greatly extended beyond that heretofore existing which would enable it now to successfully compete for many purposes with coal transported from Vancouver Island.

Proximity to croppings of seams known and considered to be more or less promising, so as to test these at a distance from the surface, would be the first consideration in selecting sites suitable for boring operations. Otherwise located, a bore hole might be put down very widely astray, and might succeed only in testing a theory; but thus guided the bore could not fail to test the ground in association with the seam or seams in question to the depths explored.

The thickness of the measures desirable to be tested in the same connection will of course govern the depth of the Bore in any given locality. The entire series exposed in the vicinity of Burrard Inlet is not far from 3,000 feet in thickness. But all these beds, except some unknown, possibly underlying ones, come to the surface; those exposed nearest to the Inlet being at the bottom and those nearest to the Fraser River at the top of the series. A bore near Port Moody, say at the terminus of the "North Road," would test the lower series; but could reveal nothing respecting the next overlying strata, which at that place have been removed by denudation. To test these it would be necessary to go as far up the coal ravine of the "Gravel Pit" (nearly opposite the North Arm or Burrard Inlet, known also as camp No. 1, and the "Italia" camp, on the railway) as it would be possible to haul the machinery. The same rocks would be far below the surface at Burnaby Lake, and probably several thousand feet beneath the city of Westminster.

A very short incline, shaft or tunnel, might test the ground satisfactorily in one place, while a bore of several hundred feet might suffice at another; the choice being determined by the contract price. Sinking by shaft, necessitating pumping of water would be undertaken only after the ground has been tested, and proved to justify that expense.

Boring for water, a question of present public interest, is quite another problem, if the water be looked for in the porous gravelly or sandy strata overlying the coal, as at Westminster. In a bore there, for an artesian well, at a depth of