which the Graving Dock rests. It would be difficult to conceive a substance more admirably adapted for a foundation, not even the rock surface itself could afford a more desirable or more substantial bedding.

The deposits overlying this moraine drift at the head of the harbor consist of sand, mud and clay, subsequently brought down by the drainage of the country, and greatly augmented since the occupation of St. John's, by refuse and sewage from the upper part of the town. The glacial drift, however, undoubtedly forms the lowest superficial deposit, as is the case everywhere around, and has nothing intervening between it and the naked upturned edges of the slates upon which it rests. The impossibility of any river silt underlying this drift, rests upon the fact, that no river existed prior to the scooping out of the valley by the action of the glacier.

I regret that my absence from home during the greater part of the time the excavations were being conducted, deprived me of the opportunity of measuring a vertical section of these superficial deposits. Through the kindness of Mr. Shuster, Superintendent of Construction, I have been enabled to obtain an approximate, sufficiently accurate in detail. I learn from the same gentleman that before reaching the required depth of thirty-one feet below high water mark, the whole of the more recent alluvial and sewage deposits were removed down to the till and some eighteen inches of the latter also. It was indeed a most fortunate circumstance that so suitable a material should be met with almost exactly where needed.

The impervious nature of this deposit to the influence of waters is, perhaps, one of its highest recommendations. Had the required depth been reached, before striking it, there might be some danger to anticipate from the influx of water, or from springs, especially where there was any considerable thickness of silt beneath the flooring of the Dock. In order to make this clear, it would be perhaps well to enter somewhat into the theory of springs: Sir Charles Lyell says, "their origin is chiefly atmospheric," or in other words their source arises in great measure from the rain and snow falls which percolate through the more porous sub-soils, till stopped by coming in contact with some im-