

the period of renewed falling. What is now the province of Nova Scotia was more than once a part of the mainland, a peninsula, an island, and a submarine bank. Its area now is about 21,000 square miles in round numbers, or over 13,000,000 of acres, and it changes every day. The sea and the running streams are lessening the land every hour, and the tides in opposition are in many places building up marshlands. But there is another power, more mysterious than either, pulling the whole peninsula down beneath the water, and it is going, going—slowly, and we don't know for how long, or whether it may change its rate, or plunge.

THE SUNKEN FOREST.

On the southern side of the isthmus connecting the province with New Brunswick and the continent, the stumps of trees—spruce, beech, pine and tamarac—forming forests are found from twenty to thirty feet below high-water mark, where they could never have grown under present conditions. In the excavations for the Ship Railway across the isthmus, I have myself seen the stumps of large trees at a depth of twenty feet below the surface of the land, and below the surface of high water, and I have dug around such a stump until I reached the layer of soil which formed the surface of the land into which its roots and those of its fellows grew long before even the Acadian was in the land. Although this evidence of modern subsidence is the most striking, it is not the only evidence. The sunken forests evidently belong to the present order of things, although they antedate history and tradition.

THE PLEISTOCENE.

But there is below the sunken forests, and spread in varying degrees of thickness over the planed, scratched and sometimes gravel-polished rock which lifts the province out of the water, what we call the soil. This is an older formation still, when no forest could have grown, for we find great banks of clay, with huge boulders baked up in them, without any order, just like what we find glaciers making at the present day, when they shove before them masses of powdered stone and mud. Then we find banks of stratified gravels, sands and clays, the result of the action of the water on the seashore or of the rivers and streams in the valleys and plains. In some of the beds we find the Arctic sea shells *Tellina* or *Saxicava*, which show that they were formed originally under the sea with an Arctic temperature. That