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The Domes of Nova Scotia.

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PART I.

GENERAL GEOLOGY.

THE Province of Nova Scotia is remarkable among regions yielding gold, not for the amount of precious metal produced, but for a beautiful lode-structure, the origin of which has provoked the constructive imagination of geologists for 50 years. As this interval of time coincides with the age of modern geology, the theories offered in explanation of local conditions serve admirably to illustrate the development of a science that has only lately achieved obvious economic importance as an aid to world-wide industry.

The gold mining region in question occupies the seaward half of the peninsula of Nova Scotia and is traversed by a series of sedimentary rocks into which granite has intruded. Mining in the granite has not been profitable, all the productive activities of the past having been confined to the sedimentary series, consisting of highly altered beds of quartzite and slate of great geologic antiquity, that is, at least as old as the Cambrian, although, in the absence of trustworthy fossil remains, it is uncertain whether they may not be even pre-Cambrian, namely, Algonkian. These beds of quartzite and slate have a known thickness of 80,000 ft., divided into an upper division of dark slate, with an estimated thickness of 11,500 ft., and a lower division of slate and quartzite about 18,000 ft. thick. It is in the lower series that the gold-bearing lodes are found, only one noteworthy mine having been worked in the upper slate, and even this exception occurs close to the line drawn between the two divisions.

The gold mining region has a maximum length, from east to west, of 200 miles, and a width, from north to south, varying from 8 to 50 miles, so that the total area comprised is about 3000 square miles (See map). The heart of the region extends from Caribou