http://geology.19thcenturyscience.org/books/1893-Dawson/README.htm

mountain and plain, already begun ; and of these we may more especially note the continued subsidence of the areas of greatest marine deposition. This has long attracted attention, and affords very convincing evidence of the connection of sedimentary deposit as a cause with the subsidence of the crust.[1]

We are indebted to a French physicist, M. Faye, for an important suggestion on this subject. It is that the sediment accumulated along the shores of the ocean presented an obstacle to radiation, and consequently to cooling of the crust, while the ocean floor, unprotected and unweighted, and constantly bathed with currents of cold water having great power of convection of heat, would be more rapidly cooled, and so would become thicker and stronger. This suggestion is complementary to the theory of Professor Hall, that the areas of greatest deposit on the margins of the ocean are necessarily those of greatest folding and consequent elevation. We have thus a hard, thick, resisting ocean bottom, which, as it settles down toward the interior, under the influence of gravity, squeezes upwards and folds and plicates all the soft sediments deposited on its edges. The Atlantic area is almost an unbroken cake of this kind. The Pacific area has cracked in many places, allowing the interior fluid matter to exude in volcanic ejections.

It may be said that all this supposes a permanent continuance of the ocean basins, whereas many geologists postulate a mid-Atlantic continent to give the thick masses of detritus found in the older formations both in Eastern America and Western Europe, and which thin off in proceeding into the

[1] Dutton in *Report of U.S. Geological Survey*, 1891. From facts stated in this report and in my "Acadian Geology," it is apparent that in the Western States and in the coalfields of Novia Scotia, shallow-water deposits have been laid down, up to thicknesses of 10,000 to 20,000 feet in connection with continuous subsidence. See also a paper by Ricketts in the *Geol. Mag.*, 1883.