surface of the present Adirondack region. It was deposited in shallow water under conditions of sufficiently vigorous wave and current action to remove all fine mud particles, which were swept away and deposited elsewhere in deeper water. In Clinton county a thickness in excess of 800 feet, perhaps more than double that amount, of this sand accumulated before changing conditions brought about a change in the character of the deposit. The water must have been shallow throughout, hence the rate of subsidence could not have exceeded the rate of accumulation. This thickness diminishes westward and southward, and the sands are mostly absent from the west side of the region, as has just been stated. With diminishing thickness, it is apparently the lower beds that disappear. The basal portion of the formation in Clinton county seems to be the oldest of the deposits in the Adirondack region, and its often coarsely pebbly character and abundant content of undecayed feldspars indicate vigorous wave action on rocky shores of resistant, unrotted rocks. The upper portion of the formation here, and most of it elsewhere, consists of pretty pure quartz sand, indicative of prevailing different conditions from those above, namely that either the feldspars had been pretty thoroughly rotted previous to submergence, or else that they experienced the triturating action of the waves for a sufficient length of time to be wholly ground fine, while the somewhat harder quartz yet remained coarse, implying a slower rate of subsidence. The former is much the more probable cause, though no doubt the latter had some influence also.

The present Adirondack region must have supplied much of the rock material thus spread on the sea floor, and the drainage of the district must have been mainly to the north and east. The present western border of the region was but slightly submerged during this time, and for part of the time the waters were clear, with deposit of limestone instead of sand. The upper part of the formation around the Adirondacks is certainly a marine deposit and holds marine fossils. These are lacking in the larger part of the formation, and this, together with its character, sug-