

alone, as we have seen, will suffice. Besides, heat entering ice could not produce a mechanical pressure that would move the glacier; for heat produces contraction of volume, not expansion. True, heat no doubt destroys the crystalline structure of the ice-molecule by tearing the constituent particles separate; but nevertheless the volume of the mass is diminished by this process, for ice in losing its crystalline structure, or, in other words, in passing from ice to water, decreases in volume.

4. *On some Reptilian remains*; by Prof. COPE, (Proc. Am. Phil. Soc., xi, 117.)—The fossil which Prof. Cope exhibited was the almost perfect cranium of a Mosasauroid reptile, the *Clidastes propython*. He explained various peculiarities of its structure, as the moveable articulation of certain of the mandibular pieces on each other, the suspension of the os-quadratum at the extremity of a cylinder composed of the opisthotic, &c., and other peculiarities. He also explained, from specimens, the characters of a large new Plesiosauroid from Kansas, discovered by Wm. E. Webb, of Topeka, which possessed deeply biconcave vertebræ, and ankylosed neural arches, with the zygapophyses directed after the manner usual among vertebrates. The former was thus shown to belong to the true Sauropterygia, and not to the Streptosauria, of which *Elasmosaurus* was the type. Several distal caudals were ankylosed, without chevron bones, and of depressed form, while proximal caudals had ankylosed diapophyses and distinct chevron bones. The form was regarded as new, and called *Polycotylus latipinnis*, from the great relative stoutness of the paddle.

He also gave an account of the discovery, by Dr. Samuel Lockwood, of Keyport, of a fragment of a large Dinosaur, in the clay which underlies immediately the clay marls below the lower Green Sand bed in Monmouth county, N. J. The piece was the extremities of the tibia and fibula, with astragalo-calcaneum ankylosed to the former, in length about sixteen inches; distal width fourteen. The confluence of the first series of tarsal bones with each other, and with the tibia, he regarded as a most interesting peculiarity, and one only met with elsewhere in the reptile *Compsognathus* and in birds. He therefore referred the animal to the order Symphypoda, near to *Compsognathus Wagn.* The extremity of the fibula was free from, and received into, a cavity of the astragalo-calcaneum, and demonstrated what the speaker had already asserted, that the fibula of *Ignanodon* and *Hadrosaurus* had been inverted by their describers. The medullary cavity was filled with open cancellous tissue. The species, which was one half larger than the type specimen of *Hadrosaurus Foulkii*, he named *Ornithotarsus immanis*.

5. *Sulphur Deposits of the island of Saba, in the Dutch West Indies*, (from a Report on the Deposit, by N. S. HIGGINS.)—The Island of Saba belongs to the volcanic range of the Carribee or Windward Islands.

A few miles to the south and west of Saba there is an extensive coral reef, upon which soundings vary from 7 to 140 fathoms in depth; between this reef and the island there is practically no bot-