

the geography of successive geological periods. There are not a few pieces of evidence, which, though in themselves individually of apparently small moment, combine to supply him with reliable data. Among these he lays special emphasis upon the proofs that, during their deposition, strata have at intervals been laid bare to sun and air.

The nature and validity of the arguments founded on this evidence will be best realized by the student if he can make observations at the margin of the sea, or of any inland sheet of water, which from time to time leaves tracts of mud or fine sand exposed to sun and rain. The way in which the muddy bottom of a dried-up pool cracks into polygonal

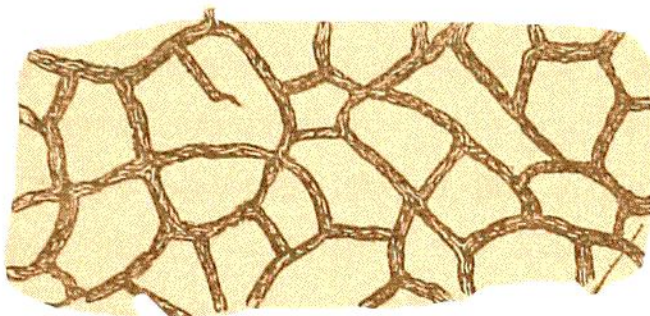


Fig. 206 —Sun-cracked surface of mud or muddy sand.

cakes when exposed to the sun may be illustrated abundantly among sedimentary rocks. These desiccation-cracks, or sun-cracks (Fig. 206), could not have been produced so long as the sediment lay under water. Their existence therefore among any strata proves that the surface of rock on which they lie was exposed to the air and dried, before the next layer of water-borne sediment was deposited upon it.

With these markings are occasionally associated prints of rain-drops. The familiar effects of a heavy shower upon a surface of moist sand or mud may be witnessed among rocks even as old as the Cambrian period. In some cases, the rain-prints are found to be ridged up on one side, in such a manner as to indicate that the rain-drops as they fell were