

7th. Natural gas in serpentine (<sup>24</sup>), Asiatic Turkey:—"On the southwestern coast of Asia Minor, north of Cape Chelidonia is the famous Chimæra or 'stone that burns,' of the ancient Greeks. Here gases are continually disengaged from fissures, and are known to have been burning for at least 2,800 years, as the phenomenon was described by Hesiod before the time of Homer. According to the Russian geologist, Tchiatcheff, the gas is emitted from fissures in an altered igneous rock (serpentine) which is intrusive in limestone."

8th. The occurrence of oil around volcanic necks, Mexico:—As described by Ezequiel Ordonez (<sup>25</sup>), in the State of Tamaulipas, Mexico, in the Gulf-Coast lands, the oil deposits are found around vertical borings, chimneys or pipes drilled upward through undisturbed and almost horizontal shales by volcanic action during the Pliocene and perhaps Post-Pliocene times and forming small isolated cones ranging from a few feet to four or five hundred feet in height. These cones of volcanic origin spread over the coastal peneplain and consist either of solid basaltic lava or of basaltic tufa. At the base of these cones, or in their neighborhood, are to be found the greater number and more important seepages of oil. The Mexican Petroleum Company, at Ebano, near Tampico, have obtained their more productive wells at the base of the tufaceous cones, such as the Cerro de la Pez, where from but very few wells around this hill they have secured a daily output of 6,000 barrels. In the more highly productive wells of this company the heavy oil, abundantly charged with gas, carries a sandy material consisting of small sharp pieces of shale, fine lapilli, and volcanic sand. The conditions above described as to the occurrence of oil prevail in an extensive zone of the Gulf-Coast lands and extend further south in Mexico to the northern half of the State of Vera-Cruz. Any number of cones, peaks and pyramids of volcanic origin are here also distributed over the coastal plain piercing through very slightly folded or undulated strata of shales, interbedded with limestones and sandstones in thin layers, the whole probably of Upper-Cretaceous age. The oil seepages are always found here also around the volcanic hills but more frequently near the isolated volcanic peaks than in

24. "Mineral Industry," New York, 1903, Vol. XI, p. 514, 515.

25. Mining and Scientific Press., Aug. 24, 1907, pp. 247-248.