

stance), occur in many parts of the world, and are not peculiar to any of the geological formations.

In the Island of Trinidad there is a great deposit of asphalt, forming a lake about three miles in circumference, and of unknown depth. The pitch at the sides is perfectly hard, but towards the middle it becomes softer, until at last it is seen boiling up in a liquid state, emitting a disagreeable odor, which is sensibly felt at ten miles distance. The appearance of ebullition however is probably due, not to heat but to the evolution of gas; and the tar probably floats on water. In the Island of Barbadoes considerable quantities of petroleum are derived from tertiary strata; and in California, this substance has recently been discovered in great abundance. Lake Asphaltites, or the Dead Sea, in Judea, derives its name from the fact of this material abounding around its shores; here the rocks are of secondary or limestone formation. The bitumen employed by the ancient Babylonians, instead of mortar, was chiefly derived from the fountains of Is—the modern Hit—on the river Euphrates. These fountains are considered to be an inexhaustible source of bitumen, which still flows copiously, mingled with intensely saline and sulphureous waters. The rocks of the district are argillaceous limestone, interspersed with beds of coarse gypsum; but the cause which has for several thousand years produced the perennial flow probably lies at a considerable depth below the surface.

Naphtha is found in Persia and Circassia, rising in the form of vapour through marly soils; and in the north of Italy and some parts of France, the substance is found in considerable abundance. But probably the most powerful and copious petroleum springs yet known are those situated on the banks of the Irawaddi, in the Birman Empire, where in one locality there are said to be no less than 520 wells, annually yielding 400,000 hogsheads of the fluid; and which are reported to have been worked for ages without any symptoms of failure. These springs issue from a pale blue clay, saturated with the oil, and resting upon a species of slate, under which is coal containing much iron pyrites. Mr. Oldham, Superintendent of the Geological Survey of India, pronounces the rocks which yield the petroleum of the Irawaddi to be tertiary, and of the eocene period.

The fact of the existence of the petroleum springs in our own neighbourhood is by no means a new discovery. The early French settlers, and the Indians of western Pennsylvania, were aware of their