ABSTRACTS OF LECTURES.

GLEANINGS IN SYRIA AND PALESTINE.

BY CAPTAIN RICHARD F. BURTON, F.R.G.S.

[A Lecture delivered at the Conversazione, March 13, 1872.*]

THE Lecturer alluded to the difficulty of getting from Alexandria to Syria by an English vessel. He said that our neglect of the East had lost us the carrying trade of the Levant; and that Damascus was now degraded to the position of a vice-consulate, taking rank with (but after) Belgium, Portugal, and Greece. This change had effected merely a saving of £300 a year.

The foreign steamer, which the traveller would almost necessarily take, passes Askelon, Jaffa, St. Jean d'Acre, Carmel, Tyre, the Lebanon, and lands at Beyrout. Captain Burton warned all against what he called "Holy Land on the brain," especially in its aggressive forms, and said that the statements of persons affected thus must be taken with many grains of salt.

Beyrout is the only Europeanised place in Syria. It has a population of 75,000, and prides itself on being "the Paris of Syria." Its people do little for six days, and carefully rest on the seventh. It is only one day's journey from Damascus, with which it has no sympathy, and of which Beyrout says, "Her soil is sacred; her sons are soiled."

The only good road in Syria leads from Beyrout to Damascus, and has been constructed under French management. The journey by diligence occupies from 4 a.m. to 6 p.m. of one day, and costs a napoleon and a half.

Captain Burton described this road. It passes beyond Beyrout through cemeteries, and then by groves of olives, prickly pears, and stone pines. The watershed of the highlands of the Lebanon is reached about twelve miles from Beyrout, and thence a view can be obtained eastward over the volcanic depression of Hollow Syria, lying between the limestone ranges of the Lebanon. This plain is very fertile, and gives rise to the Orontes, the Litâny, and the Jordan, but in places it is damp and agueish, and subject to many changes of temperature. The little villages are built on low hills. and there are numerous buffaloes to be seen. The Anti-Libanus is traversed by a ravine, which opens on a piece of rough desert ground, dipping into a gorge, through which flows the river of Damascus. In this gorge the contrast of fertility and barrenness is as striking as that afforded by Spain. The valley itself is full of vegetation, but barren cliffs of jurassic and other limestone, and of sandstone, rise up on both sides of it.

The old entrance to Damascus was very striking, when, coming suddenly out of a bend in a deep, tunnel-like road, the city—a "pearl set in emeralds" —lay before the traveller. Like Stamboul, Damascus is lovely outside. Round its white buildings the green gardens are clustered, and all this fairness is surrounded by desert. The new road, however, presents no such striking sight. It leads entirely through graveyards, and into that Damascus which seems everywhere ready to fall into heaps. Damascus is the second in order of Biblical cities, coming only after Hebron; and Damascus, rather than Rome, deserves to be called the "Eternal City."

The difficulties of getting to Palmyra from Damascus are very great. The country is disturbed; the chiefs ask immense sums of money to protect travellers from their own tribe, and, after all, will only allow forty-eight hours' stay in the place. Captain Burton and his wife, and a French gentleman who had come twice to Damascus to try to go to Palmyra, took the journey in spite of all the difficulties and of many warnings. The route lay first over the low-

* This Abstract is reprinted from *The Field*.

lands east of Damascus, then north-east across a range of hills, when the valley of Palmyra was reached, and, after that, it is impossible to lose the way. The country was excessively disturbed up to within five hours' ride of Damascus, and a Bedouin *razzia* was to be feared. The journey to Palmyra took eight days, the return journey was done in four.

The tents of the party when they reached Palmyra were pitched near the Grand Colonnade, a very unhealthy locality. The village of Tadmor, most of the huts of which are huddled together in the Temple of the Sun, is also very feverish. May is the best time to visit Palmyra, but it may happen even then, as it did to Captain Burton's party, that snow may alternate with a warm sirocco.

If the question were to be asked, "Is Palmyra worth all the trouble of getting to it?" Captain Burton would answer "Yes" and "No."—"No" for the Grand Colonnade and for the Temple of the Sun; "Yes" for the site, for excavations, for the coins and tesseræ to be found. The site is very interesting —like Pæstum, it lies between the mountains and the sea; like Damascus, it lies on the eastern slope of the hills.

Its mummy towers, which date from A.D. 2 and A.D. 102, are very interesting. Three of these are called respectively by Arabic names, which signify the Pretty Palace, the Palace of the Maiden, and the Palace of the Bride. The skulls found, of which Captain Burton brought several to England, are of Syrian and Phœnician types. In all the skulls date stones were found; in one a peach, and in another an apricot stone; and in some almond shells, with the ends cut off. This is a very curious circumstance. Some statuary of a semi-barbarous kind was found. The excavations much excited the natives of Tadmor, who reported that golden figures, life-size, and at least a chest full of gold pieces, had been found.

ELEMENTARY CHEMISTRY.

BY PROFESSOR ODLING, M.B., F.R.S., F.C.S.

[Notes of a course of Eight Lectures, commenced January 15, 1872.]

LECTURE V.—February 12, 1872.

THE carbonic acid, evolved from limestone or chalk upon strong ignition, or by the action of acids, also produced by burning carbon in air or oxygen. (*vide* Lecture I.) Possibility of weighing the so produced carbonic acid, by reason of its absorbability by caustic potash, with proportionate addition of weight thereto. Exact determination of the composition of carbonic acid gas, by burning a known weight of carbon in a current of oxygen, and noting the weight of carbonic acid produced and absorbed. Details of the experiment. For every 12 parts of carbon burnt, 44 parts of carbonic acid found to be produced; or acquisition by 12 parts of carbon, in burning, of 32, or twice 16, parts of oxygen; whence the formula for carbonic acid, CO_2.

Complete deoxidation of water-vapour or steam, by its transmission over strongly ignited iron, with production of hydrogen. Similar, but incomplete, deoxidation of carbonic acid, by its transmission over strongly ignited iron, with production of an inflammable gas, known as carbonous oxide. The same gas made more conveniently by heating chalk, which of itself would yield carbonic acid, with zinc or iron filings; and in other ways. Combustibility of carbonous oxide in air, with a characteristic blue flame, to reproduce carbonic acid. Deoxidation of gently heated copper oxide by carbonous oxide, as by hydrogen. For every 44 parts of carbonic acid produced, the opper oxide found to have lost 16 parts, become united consequently with 28