

but none of them are of such importance as to require the remolding of chemical hand-books.

—The difference between anthracite and bituminous coal is this: Bituminous coal contains a certain amount of volatile substances varying from 15 to 60 per cent.; such a coal burns with a bright, yellow flame. Anthracite contains no volatile matter, and burns with very little flame, but produces intense heat.

—The greatest heat hitherto observed is found in Central Africa, in a region embracing part of Soudan, Abyssinia, Nubia and Cafferia. Thus it is seen that the hottest locality is not on the equator, as many persons suppose, but north of it, between the fifth and eighteenth degree of N. Lat., and the fifteenth and twentieth degree of E. Long.

—I visited George Eliot's grave at Highgate the other day, and was struck by the many touching tokens of affection which I saw there. It was a chill and cheerless autumn afternoon, but a number of beautiful flowers were lying at the foot of the cold, gray-granite pillar which tells who rests beneath. There is no grave in the cemetery more frequently asked for, and persons from all parts of the world visit it.—*Ex.*

—Theophrastes, in his work on Stones, mentions the lynceum as possessing, like amber, when rubbed, the property of attracting very light bodies, such as barbs of feathers, filaments of wool, etc. Philologists tell us that this lynceum of the ancients is our Tourmaline and that its name is derived from *λύγξ* and *οὖρον*; because the old physicists believed that that precious stone was formed of the secretions of the lynx.

—One of the curiosities of the Paris Electrical Exposition is a stamp of a telegraph pole which has been pecked through by woodpeckers. These birds recognize the existence of worms in wood by a fine ticking perceptible to their delicate senses; the vibration of the telegraph pole produces the same effect, deceiving the birds until they make a hole from side to side, but find no worm.

—Arctic exploration is again under a cloud. The "Jeannette" has been searched for in vain, and now the English scientists are disputing as to the best route to be pursued in order to reach an advanced position within the unknown area. The German Government has, however, asked the Reichsrath for 300,000 thalers in order that the Fatherland may join France and England in a proposed international expedition, which may be the means of at last arriving at a definite knowledge of that much explored region.

—The moon is, like the earth, an ellipsoid with three different axes: the shortest axis is from pole to pole; the next longest is that which lies in the direction our satellite moves—a direction which is very nearly perpendicular to the polar axis, as it is but slightly inclined to the plane of its ecliptic,—and the longest of all is on the line connected with the

earth that attracts it. The difference in the length of these axes is, however, but small: the mean axis would be $46\frac{1}{2}$ feet longer than the shortest one; and the longest, 186 feet longer than the mean one, or about $232\frac{1}{2}$ feet longer than the shortest one.

—That mineral coal is of vegetable origin is beyond all reasonable doubt; for the coal-beds, as well as the strata of shale and limestone which accompany them, generally abound in the impressions of leaves and stems of plants; and its texture closely resembles charcoal made from modern wood. Indeed, numerous large stumps of trees are found upright, or nearly so, with their roots still embedded in their native soil (old "dirt-beds"). At the time of its formation there were,—besides many genera and orders of trees totally unknown at the present day, such as the *Stigmaries*, *Lepidodendrids*, *Sigillariids* and various species of *Calamites*,—horse tails, club mosses and tree-ferns, all of enormous size, which are found to be very nearly allied to the comparatively diminutive specimens of the same orders of plants now existing in our climate.

It is certain that at the remote period of coal accumulation the earth was covered by an extremely rank, most luxuriant vegetation; and that a nearly tropical heat pervaded the entire surface. This we know to have been the case; for the cellular tissues of those coal-plants—all of them of tropical or sub-tropical growth—attained such vast proportions, and increased so wonderfully fast, that they could have existed only in very warm, moist latitudes.

—It is said, and is believed by not a few persons, that the word "Canada" is derived from two Spanish etymons, "*acà nada*," i. e., here nothing. They contend that the Spaniards visited this country previous to the French, in search after gold and silver; but finding none, they repeatedly exclaimed, in the hearing of the Indians, "*acà nada!*" "*acà nada!*"! The latter learned and remembered the expression, and repeated it to the French when these first landed on the banks of the St. Lawrence. The French, who knew less of Spanish than the Indians, supposed that that was the name of the country, and called it "Canada." But we think that this is an entirely gratuitous assertion; for we have failed to find any reputable authority in support of it. It is even not proved that the Spaniards did visit this part of America before the French. The more scientific and the more generally received opinion concerning the etymology of the word in question is that it is derived from an Iroquois word, *Kanata* or *Kannata*, which signifies a collection of huts, a village. When Jacques Cartier first landed on the site now occupied by the city of Quebec, he tells us that he met there the great chief Donnacona, whose ordinary residence was at Stadacona, a village on the River St. Charles about 3 miles from its confluence with the St. Lawrence, and who was ruler of the kingdom of *Kannata*.