gave the name of Tetracaulodon, as will be shown hereafter. Professor Owen has attached a new importance to this tusk, as one distinctive character between the genus Mastodon, and the genus Elephas; a distinction which M. de Blainville, Dr. Falconer and others, have been willing to pass over. But hitherto, so far as we know, the existence of this part in the elephant has not been discovered; while it is perfectly established in regard to the principal species of Mastodon, the Mastodon giganteus, and Mastodon *angustidens*. *So long as this* fact remains uncontroverted, we should consider it, taken in connection with other facts, as forming an impassable boundary between the two families.

This tusk is eleven inches long, five and a half in circumference, and two in diameter at the base; being longer by an inch than the cast of a similar one in the collection of the American Philosophical Society, which was taken from the specimen originally described by Dr. Godman, and disinterred by Mr. Archibald Crawford near Newburgh. The direction of our tusk is forward and downward, forming an angle with a horizontal line of about 45°. It has a cavity an inch and a half in diameter at the internal extremity, the thickness of the edge being one-fourth of an inch; this cavity is of a conical form, and two inches deep. The rest of the tusk appears to be solid. The anterior extremity is rounded and about an inch in diameter; on one side it has been worn away to the extent of four inches. The worn surface is smooth at its extremity only, the rest being quite rough; the depth of the external layer is exposed in this abrasion, and exhibits the thickness of an eighth of an inch. Near the posterior or internal extremity are seen a number of circles, to the amount of ten or eleven, extending from the base, to two or three inches forward, and occupying that part which lay in the socket. The surface of the tusk generally exhibits longitudinal striæ, in some of which, cracks begin to appear from desiccation. These striæ are distant from each other from a fourth to an eighth of an inch. The color of the tusk is brown, excepting three inches of its anterior extremity, which are nearly black. At the fissures it is seen to be composed of laminæ about the sixth of an inch in thickness. It is perfectly firm and free from any marked evidence of decomposition."

Dr. Warren mentions more or less fully and figures other Mastodon skeletons found in the United States. Plates 16, 18, 19, are devoted to the Shawangunk head found at Scotchtown, Orange Co., New York, which is particularly described. The size of this head is not exceeded by that of any other hitherto discovered. Its greatest breadth is 31 inches, its vertical elevation 33¼ inches, and the length from the ridge of the occipital plane to the extremity of the intermaxilary bones, is 48 inches.

The characteristics of some other species of Mastodon occupy several pages of the work; and the so-called *Tetracaulodon* is recognized as the male of Mastodon giganteus.

The work closes with a dissertation on the food and supposed discovery of hair of the M. giganteus, and on its geological situation and causes of preservation. The author states that of the five skeletons known at this time, three have been found in the fresh water marshes of Orange Co., N. Y., a fourth in an interior morass in New Jersey, and the fifth near the banks of the Missouri, probably in a fresh water deposit. Scattered bones are common from various parts of the country, and even from the far north. They are reported from the surface soil, peat marshes, beds of marl or loam, etc.; but, as Lyell observes, there is yet no satisfactory evidence of their occurrence beneath the proper drift.

The North American Mastodon bones hitherto found appear to belong to the same species, excepting a single tooth, reported from Caroline County, Maryland. Dr. Warren enters into the history of this tooth, discusses the possibility of its being a stray tooth from another continent, and concludes that it is what it purports to be, a true Maryland fossil, closely related to the Mastodon Humboldtius (or M. *angustidens* if the two are one), of South America, if not identical with it.

An Appendix contains various facts of interest, and among them a description of a specimen of the Mastodon angustidens found near Turin, (called the Dusina Mastodon), taken from Sismonda's "Osteografia di un Mastodonte angustidente," published at Turin, in 1851.

CORRESPONDENCE.

The letter of a "Member of the Canadian Institute," which we publish below, together with a plan of the City Frontage on the Bay, are worthy the attention of those interested in the long talked of Esplanade project. We have not been favoured with a knowledge of the plan contemplated by the City authorities, and cannot therefore say how far the one proposed by our Correspondent may agree with it; but are of opinion that although our Correspondent's ideas may to many appear somewhat chimerical, and especially so to interested parties, yet the plan he proposes may certainly form a basis for a general arrangement highly advantageous not only to the City at large, but also to the Railway Companies. We would especially direct attention to the proposed manner of passing from the streets to the wharves *over* the Railroad tracks, thereby completely avoiding the accidents so common at level crossings on crowded thoroughfares, and infinitely increasing the facilities for business. This part of our Correspondent's plan would effect a similar object to that which it is costing the Great Western Roads, very heavy outlay to accomplish through the City of Hamilton.

We are greatly indebted to Mr. Scobie for permission to transfer a portion of his excellent map of the City as an illustration of our Correspondent's letter.

Railway Termini and Pleasure Grounds.

To the Editor of the Canadian Journal.

Sir,—Believing that one object of your Journal is to facilitate the dissemination of information relating to the public improvements of the Province, and that the Society, of which it is the official organ, is established, if not chiefly, at least to a certain extent, for that purpose. I have little hesitation in addressing you on a subject already exciting some attention in Toronto, viz.: "The Railway Termini and improvement of the water frontage of the City"; and if you should consider that the scheme propounded contains any suggestions which may be of value to those who have the carrying out of these improvements, or the subject matter of importance sufficient to enlist the attention of your readers generally, it may probably be not unworthy of a place in your columns.

The water frontage of Toronto, extending over a length of from 2 to 3 miles, and up to the present time almost unoccupied, is now about to be used for Railway purposes. Adjoining thereto, and extending about ¾ of a mile along the south side of Front Street, immediately to the east of the Old Fort, a tract of land averaging in width about 100 feet, was some years ago reserved for the public as a promenade or pleasure ground, which Reserve is also being appropriated by the Railway Companies for their own use.

Much has lately been written, and far more has been said, regarding the occupation of the water frontage by the Railway Companies, and