crease of schools for technical education may help or hinder the development of the Central Technical College remains to be seen. If to some extent it increases the competition for students, on the other hand it may, in the long run, more than compensate for this by increasing the public appreciation of the value of technical education. It is also suggested that probably the falling off in the number of candidates for admission is chiefly due to the continued commercial depression, and happily this is a disadvantageous condition which may be expected to pass away.

A copy of the programme of the College, received at the same time as the report, shows that the College is far and away in advance of similar institutions in London, and is in the highest degree competent to provide "for the higher technical education, in which advanced instruction shall be provided in those kinds of knowledge which bear upon the different branches of productive industry, whether manufactures or arts."

SCIENTIFIC SERIALS

American Journal of Science, February.—On the relation of gravity to continental elevation, by T. C. Mendenhall. Determinations of the intensity of gravitation made by the Coast and Geodetic Survey, and by Commander Defforges, and extending across the North American continent, bring out the fact that the deviations from the values of gravitation as deduced from the theoretical shape of the earth's spheroid, are in a direct relation to the elevation of the observing station above sea-level. An explanation based upon differences in the density of the surface layers is difficult to find, but the fact is undoubted.—Glacial phenomena of Newfoundland, Labrador, and Southern Greenland, by G. F. Wright. The ice-sheet of Southern Greenland formerly sent glaciers down through all the fiords, filling them to a height of about 2000 feet, and pushing even to the very margin of the continent. Greenland, therefore, like the rest of the world, has had its ice age, which has already partially passed away. During the maximum of the ice extension, the mountains bordering the sea in Southern Greenland formed innumerable "nunataks." The ice was not thick enough to cover them in solid mass, and there is no probability that the ice extended far out into Davis Straits. In Labrador and Newfoundland, on the other hand, all the mountains were completely covered with glacial ice, which extended far out over the bordering continental plateau. The facts point to considerable preglacial elevations of land, followed in Labrador, at least, by a period of extensive depression below the present level, and subsequent gradual elevation. There is evidence of the recent date of the glacial period, while the indications of recent changes of level point to terrestrial rather than astronomical causes to account for the vicissitudes of the glacial period.—The *Pithecanthropus erectus*, Dubois, from Java, by O. C. Marsh (see pp. 428-29).

Bulletin of the American Mathematical Society, vol. i. 4 (New York, January 1895).—A pathetic interest is attached to the second article, "Note on a memoir in Smith's collected papers," as it must have been amongst the last pieces of work done by Prof. Cayley. The memoir is that on the Theta and Omega Functions (Smith papers, vol. ii. pp. 415-623). The notice is a very slight one, and gives an abstract of the contents of the memoir.—The opening paper is a presidential address, delivered before the American Mathematical Society at its annual meeting, December 28, 1894, of which the title is, "The Past and Future of the Society." Dr. McClintock traces the growth of the Society from its origin in 1888 as a small mathematical club, meeting at Columbia College, whose first meeting was called by a circular signed by three young men, up to its present membership of 251. A paragraph points out that the pioneer of all these mathematical societies which have subsequently sprung up was the London Mathematical Society. "There had been no previous example of a similar organisation, and fears were felt and expressed that its management might naturally drift into the hands of a few having time and energy to give to its affairs, and that there might thus be serious danger of its falling into the control of a clique. The lapse of time has developed the fact that the leading members of that Society have been men of broad views, unusually free from personal prejudice, and quick to recognise talent wherever displayed. We may almost conclude from the history of that Society that proficiency in the science of mathematics is distinct evidence of a well-balanced mind." We repeat the wish we have previously expressed for the continued success of this flourishing young branch. In the Notes the new officers and Council are given, the new President being Dr. George W. Hill.—A long list of new publications closes the number.

IN the numbers of the *Journal of Botany* for January and February, new plants are described by Mr. A. Fryer from Scotland (a new hybrid *Potamogeton*); by Mr. R. P. Murray, from Teneriffe; by Mr. W. Fawcett, from Jamaica; and by Mr. H. N. Ridley, from the Malay Peninsula. Mr. A. Bennett discusses the claims of *Juncus tenuis* to rank as a British species.

SOCIETIES AND ACADEMIES.

LONDON

Chemical Society, February 7.—Dr. H. E. Armstrong, President, in the chair.—The following papers were read: The action of heat on ethylic β-amidocrotonate; Part ii., by J. N. Collie. During the destructive distillation of this salt, αγ-dimethyl α¹-ethoxypyridine, a dimethylpyrrol and a pyridine derivative, $C_6H_8N_2O$, are produced together with ethylic lutidonemonocarboxylate.—The acidimetry of hydrogen fluoride, by T. Haga and Y. Osaka. Phenolphthalein is the best indicator to use in the titration of hydrofluoric acid. The authors' experiments with litmus suggest that the molecular composition of hydrogen fluoride is H_3F_3 or H_4F_4.—Composition of ancient silver ornaments from Peru, by Miss C. Walker.—Molecular change in a silver amalgam, by Miss F. T. Littleton.—On heating silver amalgam, preferably of the composition $Ag\,Hg_4$, considerable swelling occurs; this can only be attributed to molecular change, inasmuch as gas is not evolved.—Sulphocamphylic acid II., by W. H. Perkin, jun. Further evidence has been obtained indicating that this acid has the composition $C_8H_{12}(SO_3H).COOH$; the acid yields two isomeric acids $C_8H_{11}.COOH$ on fusion with potash. Other new derivatives have been obtained.—Derivatives of ethylorthotoluidine, by W. MacCallum, jun.—Acetyl derivatives of benzaconine and aconitine, by W. R. Dunstan and F. H. Carr. A number of unsuccessful attempts have been made to convert benzaconine into aconitine by introducing an acetyl group; two isomeric triacetylbenzaconines and a tetracetylbenzaconine are obtained on acetylation. The authors have also prepared di- and tri-acetylaconitine and triacetylpyraconitine.—Aconitine aurichlorides, by W. R. Dunstan and H. A. D. Jowett. A new examination of the three modifications of aconitine aurichloride confirms the authors' previous assertions as to the existence and nature of these compounds. The alcoholate of aconitine aurichloride described by Freund and Beck is the β-aurichloride containing a little alcohol.

Entomological Society, February 6.—Prof. Raphael Meldola, F.R.S., President, in the chair.—The President announced that he had nominated the Right Hon. Lord Walsingham, F.R.S., Mr. Henry John Elwes, and Prof. Edward B. Poulton, F.R.S., Vice-Presidents of the Society for the Session 1895-96.—Mr. W. F. H. Blandford made some remarks regarding Mons. Brongniart's donation to the library, of his monograph entitled "Recherches pour servir a l'histoire des Insectes Fossiles des Temps Primaires." Mr. Blandford also called attention to figures of pupæ of species of *Spalgis* (Lycænidæ), in the *Journal* of the Bombay Natural History Society. A discussion followed, in which Mr. Hampson and Mr. McLachlan took part.—Canon Fowler exhibited, on behalf of Mr. C. A. Myers, an unusually fine specimen of *Sphæria robertsi*, growing from the prothorax of an underground larva of a Hepialus, supposed to be *H. virescens*, from New Zealand. Mr. McLachlan said that there was a doubt whether the caterpillar should be referred to this species. Mr. Blandford stated that the French Government had set aside a sect on of the Pasteur Institute at Paris for the study of entomophagous fungi.—Prof. L. C. Miall, F.R.S., and Mr. N. Walker, communicated a paper entitled "On the Life History of *Pericoma canescens* (Psychodidæ)," with an Appendix by Baron Osten-Sacken.—Herr Jacoby read a paper entitled "Contributions to our Knowledge of African Phytophagous Coleoptera." Dr. D. Sharp, F.R.S., remarked that Erichsen began the "In-