

There are no words beginning with the English *c* sound in the dictionary, and all the words under *č* in the dictionary are to be pronounced *tch*, or as the *c* in "church." Why, then, should not the simple *c* stand for this sound? The new *č* seems unnecessary.

The letter *j* is to be pronounced as *j* in "judge," but it is to be written *ĵ*. In the Yoruba dictionary the sound *sh* is written *š*. This sign, Mr. Thomas says, stands for the cerebral *s*, and he writes the *sh* sound *š* instead of *š*. There will be great gnashing of teeth in Nigeria until the Government takes the matter up and appoints a commission to settle which system is to be maintained.

Part iii.—Needless to say, Mr. Thomas has treated the proverbs, narratives, and grammar scientifically. The folklorist will revel in them. The student of the Ibo language will be greatly helped by the literal translations of the stories and by the vocabularies.

Mr. Thomas divides the languages in Southern Nigeria into four groups.

- (a) Yoruba with Igara and Šekri (Jekri).
- (b) Edo (Ado), including Sobo, Bini, Kukuruku, and Esa (Ishan).
- (c) Ibo with Ika and numerous other languages.
- (d) Efik and Ibibio.

The Government of Southern Nigeria is to be congratulated on the production of these valuable reports by its Government anthropologist, and we hope that Mr. Thomas will soon give us equally interesting books about the Ibibios and Efiks.

#### THE INTERNATIONAL ASSOCIATION OF ACADEMIES.

THE fifth meeting of the International Association of Academies was held at St. Petersburg during Whit-week. Of the twenty-two academies which constitute the association, twenty-one took part in the proceedings, the British Academy being the only society which was not represented. The delegates of the Royal Society were: Sir David Prain, Prof. Arthur Schuster, Prof. Sherrington, and Prof. Turner.

Among the new proposals the most important was that submitted by the Berlin Academy for an international investigation of the problems connected with volcanoes. It is not intended to form an international institute similar to that for geodesy or seismology, but rather to encourage each country to take its share in the investigation by establishing, if desirable, a separate institute of its own. An autonomous commission of the International Association of Academies could then act as connecting link between the different institutions. A small committee was nominated to make more definite proposals to the next assembly, and was authorised to enter into communication with the separate academies, each being asked to nominate a representative, and thus form a larger body to assist the committee in formulating a scheme of joint investigation.

An interesting proposal came from the Imperial Academy of St. Petersburg. The want is appar-

ently felt in several branches of science to have a more scientific scale and definition of compound colours than exists at present. It ought to be possible to define the colour, e.g., of a particular leaf, the skin of an animal, or a new chemical compound in such a way that everyone could obtain an accurate idea of it. Books, containing numbered samples of the different shades of the various colours, suffer from the defect that they are subject to change; and though in practice it may be found necessary to use such books as secondary standards, some means should be found to compare them from time to time with a more scientific scale of colours. The committee appointed to discuss this question consists of: Prince Galitzin, Sir Wm. Abney, and Messrs. Nasonow, Saccardo, Schuster, and Walden.

It has become the habit of the association to give its moral support to undertakings which it considers valuable; such support often enabling those more directly interested in them to obtain from other sources the financial help they need. A proposal to encourage in this fashion an organisation instituted at Frankfort by Prof. Brendel for calculating the orbits of small planets was adopted on the motion of the Académie des Sciences of Paris.

An enterprise to publish annually a table of physico-chemical constants had already been supported at the meeting at Rome; and though the utility of the work was subjected to some criticisms, it appeared that there was a real demand for it, and it received renewed support at the present assembly.

A report was presented by Prof. Turner on the progress of the work connected with the nomenclature of features on the surface of the moon. Although the committee has suffered much through the deaths of Prof. Franz and Mr. Saunders, there is good hope that the work will soon be completed and prove a most useful help to students of lunar phenomena.

A question of wider interest was raised by the French proposal to discuss the possibility of a reform of the calendar. This includes not only the question of fixing the date of Easter, but also more sweeping changes intended to divide the year into four equal quarters (at present the first six months consist of 181 and the second six months of 184 days) and the intercalation of an occasional extra day in the week, introduced to secure that the same day in each year should always be associated with the same day of the week. A committee was appointed to consider this matter.

The above, referring entirely to the work of the section of science, does not exhaust the questions which were raised and discussed before that section. The section of letters also had a successful meeting.

The association is still young, and consequently has to devote some attention to the statutes and regulations for its procedure, which have not yet become crystallised. A proposal to appoint a permanent secretary was strongly supported by some and opposed by other academies. It will

come up for decision at the next meeting, which will be held three years hence in Berlin, after discussion by a standing committee charged with the general revision of the statutes.

Proposals to elect the Royal Society of Edinburgh and the Finnish Academy of Helsingfors as members of the association were presented by the Royal Society of London and the Imperial Academy of St. Petersburg respectively. As several of the delegates were without definite instructions from their academies, the proposals will have to be submitted to the constituent bodies and voted upon by correspondence.

It is needless to say that the social functions of the meeting were carried out admirably and with lavish hospitality. Dinners and evening parties followed each other almost too continuously, and the ladies accompanying the delegates will not forget the manner in which they were hospitably entertained throughout their stay in St. Petersburg. But this account is only intended to deal with the scientific aspect of the meeting, and a brief reference only can therefore be made to the visit to the Tsar's palace at Tsarkoé Sélo, during which the delegates were individually presented to the Emperor of Russia and afterwards entertained at luncheon.

ARTHUR SCHUSTER.

PROF. JAMES GORDON MACGREGOR, F.R.S.

PROF. J. G. MACGREGOR, of Edinburgh University, died suddenly and unexpectedly on the morning of Wednesday, May 21, shortly after he had risen, apparently in his usual health. It was known, of course, both to himself and his friends that his heart was not in the healthiest condition, but up to the moment of his death no really grave symptoms had declared themselves.

Prof. MacGregor was born on March 31, 1852, at Halifax, Nova Scotia, where his father had been a well-known clergyman. He early showed mental abilities of a high order; and in 1871 he graduated M.A. at Dalhousie College, Halifax, with the highest distinctions in all departments. He was awarded the Canadian Gilchrist scholarship, the condition of which required him to continue his studies and take a degree in London University. He decided to follow out physical and chemical science, and in 1871 entered himself as a student of science in the University of Edinburgh. He began what promised to be a most distinguished career; but unfortunately he broke down in health and was forbidden to work for competitive honours in the classes. During his second winter he spent much of his time in Prof. Tait's laboratory, and in conjunction with Ewing (now Sir Alfred) he measured the electrical resistance of certain saline solutions. The paper was soon afterwards published in the Transactions of the Royal Society of Edinburgh, and it may be regarded as giving the impulse which led MacGregor to follow up the line in which his best original work was done.

He spent the better part of two years in Leipzig in the laboratory of Gustav Wiedemann, and

carried out some investigations in the electrical resistance of stretched silver wires. He gained his doctorate of science in 1876, and was immediately thereafter recalled to his native town as lecturer in physics in Dalhousie College. This he held for only one year, and from 1877 to 1879 he filled the important post of physical science master in Clifton College. The tragic death, as the result of a shooting accident, of one of the Clifton College masters, beside whom MacGregor was sitting at the moment of the accident, seriously affected his health at the time, compelling him to stop work entirely for several months. Meanwhile the Dalhousie College lectureship had developed into the Munro chair of physics, and MacGregor, undoubtedly their most promising alumnus, was invited to become professor. For twenty-two years he filled this post to the educational advantage of his native town. He took an active share in the founding of the Royal Society of Canada, in the Transactions of which some of his most important papers are published. He also keenly interested himself in the welfare of the Nova Scotian Institute of Science.

In 1887 MacGregor brought out a text-book on kinematics and dynamics (Macmillan and Co.). At the time of its publication it occupied an intermediate position between the elementary text-books and the treatise of Thomson and Tait, whose methods, indeed, MacGregor largely followed. The book had outstanding merits, and covered not only what is ordinarily understood by dynamics, but much also of hydrodynamics and elasticity. In 1909 appeared a third edition, considerably altered and improved.

The writing of this book turned MacGregor's mind to the difficult question of the foundations of dynamical science; and his conclusions were given in several papers, some of which appeared in the Transactions of the Royal Society of Canada and others in the *Philosophical Magazine*. These are characterised by clearness of apprehension of the questions at stake and by a logical statement of his own views.

On the retirement of Prof. Tait in 1901 from the chair which he had filled with such conspicuous success for forty years, Prof. MacGregor was elected his successor. During the twelve years of his tenure of this post MacGregor's chief work outside the ordinary duties of his chair was to develop the natural philosophy department and bring it into line with modern requirements. The transformation of the old infirmary building into a well-equipped laboratory demanded a vast amount of detailed consideration; and after two years of careful planning the new department was opened in 1907, not in the completed state designed by MacGregor, but sufficiently developed for a start to be made. With later additions and developments the whole combined departments of natural philosophy and applied mathematics remain as a lasting monument to Prof. MacGregor's energy, zeal, and forethought.

During the last few years Prof. MacGregor had been actively engaged in appealing to Prof. Tait's