The educational bill providing for five scholarships in each assembly district of New York state has been signed by Governor Sulzer. Each holder of a scholarship will receive from the state $100 a year for four years to be applied toward the payment of the annual tuition fee charged by the college selected, which must be within the state. Scholarships will be awarded on the basis of school standing, and when they are all filled there will be 3,000 students at one time receiving state aid.

The Sheldon traveling fellowships of Harvard University have been awarded in the sciences as follows: Donald Clinton Barton, Cambridge, for research in geology in Europe and Egypt during the summer; Sidney Fay Blake, for research in botany in Europe; Elmer Keiser Bolton, for research in chemistry at Berlin; Richard Maurice Elliott, for research in psychology, particularly in the psychophysics of handwriting, at Berlin and in the various psychological laboratories of Germany; Harvey Cornelius Hayes, instructor in physics, for travel in the United States, between September and February, for the purpose of observing the manufacture of alloys; Sidney Isaac Kornhauser, for research in zoology at Würzburg and at the Naples Zoological Station; Edward Hale Perry, for travel in the mining districts of the United States during the summer of 1913; Joseph Slepian, for research in mathematics in Europe, and Paul Dudley White, for research in pharmacology at London and Strassburg.

The governing body of the Royal School of Mines, which is an integral part of the Imperial College of Science and Technology, London, are about to appoint a new professor of metallurgy in the room of Professor W. A. Carlyle, who is resigning in order to resume his professional work.

Professor Edward L. Nichols, of the department of physics of Cornell University, has been appointed dean of the College of Arts and Sciences.

Martin John Prucha, of Cornell University, has been appointed assistant professor of dairy bacteriology in the College of Agriculture of the University of Illinois, and assistant chief in dairy bacteriology in the Agricultural Experiment Station. He will be associated with the new head of the dairy department, Dr. A. H. Harding.

Discussion and Correspondence

Conventional position of monoclinic crystals a question in crystallographic usage

To the Editor of Science: So much of individual preference, not to say caprice, has in the past attached itself to crystallographic nomenclature and convention that it seems desirable, before introducing further innovation, to get the opinion of as many interested persons as possible as to the ultimate usefulness of any proposed change. For this reason the writer is asking space in Science, which probably reaches more of our scientific men who come in contact with crystallography than any other single publication, in order to test an idea as to the most desirable setting of crystals belonging to the monoclinic system.

It is suggested that the ortho-axis, which is customarily placed in horizontal position, be set vertically.

The objection at once presents itself that a change from the older long-established setting would necessitate restatement of the crystallographic data concerning all monoclinic substances.

It is, moreover, possible that familiarity with the ordinary types of animals has so accustomed the mind to thinking of a single plane of symmetry in vertical position that advantage should be taken of this facility of thought in presenting to students the somewhat analogous configuration of monoclinic crystals. That this argument should not be given too much weight, however, is evidenced by the fact that beginners of their own accord not rarely place the plane of symmetry of monoclinic crystal models in horizontal position, even after they have recognized the absence of other symmetry planes.

In favor of the proposed change may be cited the following arguments:

1. The conventional usage, already prevail-

ing in the tetragonal, hexagonal and orthorhombic systems, might be made general, viz., that when only one axis of symmetry is present this is set as the *vertical* axis.

2. That diameter which alone is distinguished from all those adjacent to it by its unique character would receive the unique treatment of vertical location, as is now the case in the tetragonal and hexagonal systems.

3. The lateral axes would, with this setting, be distinguished as the macro- and brachy-axes, as in the orthorhombic and triclinic systems. Every teacher realizes what a store of mental energy this would set free for more profitable application than its present task of keeping in their proper places the prefixes clino-, ortho-, macro- and brachy-.

4. The familiar spherical projections which Groth has used to show the kinds of crystal symmetry, and which are now widely used, would then have the same relative position in the monoclinic as in the other systems.

5. The failure of positive forms to occur in the upper front right octant could be obviated by placing acute β at the right of the observer, thus removing another unnecessary stumbling-block from the path of the learner.

The undersigned would be very glad to see an expression of opinion by any interested readers as to the desirability of making this change in the conventional position of monoclinic crystals.

A. C. GILL

CORNELL UNIVERSITY,
March 26, 1913

QUOTATIONS

UNIVERSITIES AND INTELLECT

THIRTY-SEVEN years ago next fall Johns Hopkins University was opened, upon an endowment estimated at less than $3,500,000. Yesterday, it was stated that the budget adopted by the trustees of Columbia University for the expenses of the coming academic year amounted to $3,450,000. The foundation of the University at Baltimore was widely acclaimed as an event of the highest importance and the most hopeful augury. Never before had the income of so large a fund been placed at the disposal of the trustees of any new American institution of learning; and the Johns Hopkins trustees had, in the choice of its president, and in the announced plans of the institution, made it plain that their opportunity was to be so used as to give to the higher intellectual life of the country a great and long-needed stimulus. The hope was entertained that the new university would be the means of introducing in America what had so long been vainly desired by scholars and scientists—the true university, in the European sense of the term. And that hope was not disappointed. The foundation of Johns Hopkins University marked the beginning of a distinctly new era in the history of higher education in America. What had formerly been the rare pursuit of a devoted scholar here and there has become the regular occupation of thousands of students in scores of colleges and universities. In many a field of research our country now makes contributions which, in point of quantity and sometimes also in point of quality, stand well alongside those of the leading nations of Europe; whereas, before the new start made in 1876, it was only some unusually gifted or ardent mind that went beyond the mere acquisition of the results of foreign learning and investigation.

In compassing with what would now be regarded as small means so signal an achievement, one cardinal feature of the policy pursued by President Gilman and the Johns Hopkins trustees was essential. There was one thing to which every effort was directed, every energy bent—the securing of the highest possible quality in the professors. A small group of real intellectual leaders formed the nucleus of the faculty; and in adding to them younger men in the various departments the keenest interest was constantly maintained in the discovery of unusual talent or exceptional attainment. Those who were at the university in its early years testify unanimously to the extraordinary exhilaration and inspiration of the atmosphere thus created. The buildings were extremely modest, and in large part of a makeshift character, being old residences altered at slight expense; the warning given by Huxley, in his notable address at the open-