

One new value would be gained. Were all the freshmen who now dawdle through chemistry, biology or botany to return to their villages with an inspiring idea of evolution, in a short time there would be no such specimens of *Titanotherium modernum* as W. J. Bryan. A number, even of the "flappers," would, I believe, come to see the fascination in learning of hydrogen stars, cathode rays, the great seed-bearing fern-like trees of the Carboniferous, etc. It is not the facts of science unrolled as that marvelous tapestry we call evolution that the freshmen revolt from. They revolt from chemical formulas, from stains, from botanical slides of algae—all meaningless to them. If we can interest them in chemistry only by chemistry spelling-matches, we are worse than the Arnoldites whom Huxley fought so valiantly.

Reduced to the last analysis, our own love for the scientific method¹ is, I think, our feeling that we can win truth only by "exact definition, by the nicest" manipulation of instruments, by, in short, driving from our habits of thinking and doing everything that is vague and slovenly. No one need marvel that we shudder at freshman modes of thought and manipulation. But in our *vast, overcrowded* classes, can we even faintly hope to make over those who are frankly disdainful of periodic tables and the minerals in monzonite porphyry, hope to make them think and act as our ideals urge us to think and act? I know a most conscientious teacher of chemistry whose students at the end of a year blithely lay reagent stoppers on desks anything but clean—if no one is looking. Who trusts fragile apparatus in the hands of the average student? If all the students were failed whose quiz papers are but "memory gems," how many seats would be vacant after the first quarter? Why do we use that empty label called the "condition grade"? In other words, does our great run of students ever come to define science as we define it? And, if we do not teach these students *respect* for the scientific method, why pretend to, when we might, let us hope, lead them to grasp the fundamentals of each of the sciences through a properly managed lecture course.

"A properly managed lecture course." Such a course need not be a "cinch." That is the blunt an-

swer to the third objection. For one thing, the working of purposeful problems and individual visits to a "hall of experiments and specimens" might be required.

Some to whom I have talked would not oppose the idea of a course in general science, were each science given by its own specialist. Logically, such lecturing would imply the use of heads of departments. Of course, not many heads are of the type of the learned geologist who spends the first three weeks in his elementary geology in forcing students to pretend to recognize models of scalenohedrons and their ilk, because the peculiarly poor text-book he uses opens with crystallography; or of the type of the chemist who wished elementary chemistry to be elective and who, since his desire was overruled, revengefully makes the course a thing of terror. Yet it is very true that, save for striking exceptions, heads of departments do not like to be censured (or censored), and that each year they become more and more ill-fitted to reach the freshman mind. The teachers of a course in general science should be the target of much criticism, should be enthusiastic, and should, above all, be subject to removal upon well-grounded complaints from their students.

Perhaps, indeed, all professors should be subject to retention or fall with much more reference to student judgment than at present. Undoubtedly, teachers of general science should.

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SCIENTIFIC EVENTS

HERMANN M. BIGGS

DR. SIMON FLEXNER, chairman of the New York State Public Health Council, has made public a resolution adopted by the council at a recent meeting in New York in honor of the memory of the late Dr. Hermann M. Biggs, state commissioner of health and chairman of the Public Health Council from the time of its organization in 1914 until his death last June. Besides Dr. Flexner the other members of the council as at present constituted include Dr. Matthias Nicoll, Jr., state commissioner of health; Mr. Homer Folks, secretary of the State Charities Aid Association; Professor H. N. Ogden, of Cornell University; Dr. Jacob Goldberg, of Buffalo; Dr. T. Mitchell Prudden, of New York, and Dr. Stanton P. Hull, of Petersburg. The resolution follows:

The Public Health Council of the State of New York, at its first meeting after the death of its late chairman, Dr. Hermann M. Biggs, desires to spread upon its records the following minute:

The relations between the Public Health Council of the State of New York and Dr. Biggs were somewhat

¹ One interesting phase of the entire question is raised by such facts as these: In a great trans-Mississippi university, geology is not allowed as a "laboratory science," though the usual laboratory work is an integral feature of the course. A thousand miles west, in another high-grade state university, students are given "science credit" for a year's work divided between physiography, climatology, and the geography of North America. The "laboratory" work, aside from slight field trips, consists of the arithmetical and graphical solution of problems, the looking up of names, etc.

different from those existing between Dr. Biggs and the many other organizations of which he was a member. It was Dr. Biggs who first suggested the establishment of this council. It was his clear vision of the desirability of separating administrative from legislative duties in the field of health, and of placing the latter in the hands of a group, which led the legislature and executive of this state, in 1913, in the revision of the public health law, to create the Public Health Council, and to endow it with quasi-legislative authority.

Dr. Biggs was chairman of the council from its organization until his death. While his official position and his exceptional experience gave him at all times a very great influence in the council, he always sought the consensus of opinion of the council on all important matters of policy. The development of a sanitary code, dealing with matters which the staff of the department and its local representatives were able to manage administratively, has been the chief duty of the council. Not infrequently, however, at council meetings, all routine matters were brushed aside by the commissioner, in order to bring forward some proposed policy or action on which he desired the advice of the council. It is indicative of Dr. Biggs' wise caution that before action he sought to clarify his own judgment and opinions in the light of group discussion.

To every member of the council it has been one of the most interesting and gratifying experiences of life to observe the consistent and continuous development of the policy and the organization of the State of New York in public health under Dr. Biggs' direction. His plans were always far-sighted and comprehensive, but he was always ready to take, at any time, those steps which might then be practicable. If further advances were blocked in one direction, he sought opportunities of moving forward in other directions. Thus, step by step, we have been privileged to witness the development of one of the most important branches of the state government from relatively small beginnings into one of the most complete and effective of public health organizations. The council feels itself unable to indicate in any adequate way the loss to the people of this state which is involved in the death of Dr. Biggs.

His personal qualities, his patience, his soundness of judgment, his unerring estimate of public opinion, his skill in the selection of assistants, and in securing from them their loyal support and the best work of which they were capable, these, as also his many other exceptional gifts, were universally recognized.

The council deplors the death of Dr. Biggs and inspired by his work pledges itself to renewed devotion to the cause for which he labored so fruitfully.

THE DEANSHIP OF THE COLLEGE OF AGRICULTURE OF THE UNIVER- SITY OF ARKANSAS

THE agricultural interests of Arkansas are deeply concerned in the choice of the new dean of the College of Agriculture of the University of Arkansas. The

entire faculty of that college has addressed to President J. C. Futrell the following letter on the subject:

In view of the fact that the success of the College of Agriculture in its several branches, namely, teaching, station and extension work, and that the working conditions surrounding the members of the staff are in very great measure dependent upon the actions and policies of the dean and director, we trust that we may, without impropriety, set before you our views concerning the type of man that should be appointed to this position:

As director of the teaching in the college, he should be thoroughly familiar with the modern trend of education in agricultural colleges.

As head of the agricultural extension forces, he should be a man who has a grasp of the problems peculiar to that branch of service.

In our judgment, since the Agricultural Experiment Station is the branch of the work that must continually vitalize and enrich all the others, the dean and director should be a man who, through first-hand experience, understands the methods and purposes of modern agricultural experiment.

It is, therefore, highly desirable that the dean and director should have had recent experience in an agricultural college and experiment station lines of activity that have brought him into intimate contact with the problems of such an institution.

While we believe it is desirable to appoint a dean as soon as may be, yet we feel strongly that wise discretion should not be sacrificed to haste in this important matter.

We respectfully request that these suggestions be seriously considered, and that they be transmitted to the board of trustees of the university.

THE SCIENTIFIC EXHIBITION AT THE BRITISH ASSOCIATION MEETING

THERE is printed in *Nature* an article by Mr. M. A. Giblett on the scientific exhibition at Liverpool in which he says:

The ninety-first annual meeting of the British Association, which has just drawn to a close at Liverpool, was characterized by a new and important departure in the form of an exhibition of scientific apparatus, instruments and diagrams. The exhibition was on the lines of that organized each year in London by the Physical and Optical Societies, which is so effective in bringing together the users and makers of physical apparatus, but its scope was naturally wider, and many branches of pure and applied science were represented.

In opening the exhibition on Monday, September 10, Sir Charles Sherrington commented upon the comprehensive and representative character of the exhibits, remarking that it was very appropriate that such a collection should be brought together, and that this—the first of its kind—constituted a definite