

(2) The Congress at large, divided into eight sections, as follows:

General Theory: Section A, Mathematical, Experimental.

Applications: Section B, General Applications, Section C, Electrochemistry; Section D, Electric Power Transmission; Section E, Electric Light and Distribution; Section F, Electric Transportation; Section G, Electric Communication, Section H, Electrotherapeutics.

The president of the committee of organization is Professor Elihu Thomson, of Lynn, Mass. The vice-presidents are B. J. Arnold, Professor H. S. Carhart, Professor W. E. Goldsborough, C. F. Scott and Dr. S. W. Stratton.

Three hundred and forty-three official invitations were issued some months ago to well-known workers in electricity, inviting papers for the congress. 168 of these invitations were issued to persons residing in countries outside of North America. As a result of these invitations, 105 American and 59 foreign specially prepared papers are promised to the congress. Up to June 30, 1,787 adhesions to the congress had been received, of which about 1,300 have paid their subscriptions of \$5.00 each. Of these, 291 are from countries outside of North America. The following societies will cooperate with the congress at St. Louis, by holding simultaneous conventions and joint sessions:

The American Institute of Electrical Engineers.
The American Electrochemical Society.
The American Physical Society.
The American Electrotherapeutic Association.
The Association of Municipal Electricians.

The following societies will cooperate with the congress by appointing delegates:

The National Electric Light Association.
The Association of Edison Illuminating Companies.
The Société Internationale des Electriciens.
The Schweizerischer Electrotechnischer Verein.

It is expected that various other European societies will also cooperate. Fourteen thousand six hundred invitations have been issued to persons interested in electricity all over the world, inviting them to join the congress. It is expected that the 'Transactions' of the

congress will attain two or three large volumes. Persons interested in electricity and who desire to join the congress should apply to the general secretary, Dr. A. E. Kennelly, Harvard University, Cambridge, Mass. Each member of the congress is entitled to receive one set of the 'Transactions.' It is intended to issue the 'Transactions' of the congress, when printed, to libraries and non-members for \$10.00 per set.

AMERICAN AND GERMAN UNIVERSITIES.

It is interesting to note that of the 37,692 students enrolled in the German universities for the term now drawing to a close, 3,093 were foreigners, of whom 986 were Russians. Female students to the number of 1,314 were enrolled for the term.

These figures do not include such students as are merely guests (hospitants), of whom there are always quite a number. These enjoy all the privileges of the regular students, but they can not be graduated. If these be added to the others, it is safe to say that fully 10 per cent. of those attending German universities are foreigners. Almost one thousand Russians, or nearly one third of the foreign element, were matriculated last winter. Next come the Austrians and Hungarians, numbering 601, or about 20 per cent. Switzerland furnished 322 regular students, and there were 324 Americans enjoying the same opportunities.

The number of foreign students, especially of those coming from Russia, has steadily grown, but a careful study of the attendance at the German universities seems to show that Americans have not been adding to this increase. Thus, if we look over the reports of the winter half-year of 1899-1900, we find that the total attendance at German universities during that period was 32,834 regular students, of whom 2,369, or about 7 per cent., were foreigners; and that 607 of these were Russians, 455 Austrians, 265 Swiss, and 317 Americans. Thus there were only seven more Americans enrolled last winter than there were four years ago.

During the nineteenth century German universities led the world in erudition and scien-

tific investigation, and their great professors attracted many students from all parts of the world in quest of higher education. But times are altered. Having myself been engaged in educational work as an American college professor for a good part of my manhood, I have naturally taken considerable interest in the life and work at the various institutions of learning in this country, and it is my impression that the facilities for higher education are improving in the United States much more rapidly than in Germany. Despite all our imperfections one can not but admire the great upward strides which the American system of education, from the humble district school up, has been making during the last few decades.

American educational institutions are the best equipped in the world. I know but one German university that can claim to be up to the times in this regard, and it stands third in the list of attendance. There is a steady progress all along the line of public instruction in the United States, and particularly in our higher class of universities.

The regular reports of German universities will continue to show the attendance of American students. Though their number may not increase materially, still they come. And it is well that they should, particularly those that have in view special studies and investigations in certain lines; for Germany is pre-eminently the land of specialists, and it must be admitted that German devotion to special work has added immensely to the sum of knowledge. Besides, a year or two spent abroad can not but prove to be a great blessing to the average American student, not because he needs it to prepare him for his life's work, but because travel and sojourn in this and other countries are in themselves a liberal education, and tend to broaden the mind, widen the horizon, remove petty prejudices, and supply an independent judgment of men and matters. A few semesters at a German university, bringing a young man in touch with the ideas and methods of the great scholars and scientists of this country, as well as with the spirit of the German student's life, is an advantage generally appreciated all through

life. But all this is rather a luxury than a necessity. No American need any longer come to this or go to any other country for higher education. In my judgment the United States offers to-day facilities for collegiate, academical and postgraduate studies equal in quantity and quality to those offered by any country in the Old World. HENRY W. DIEDERICH,

Consul.

BREMEN, GERMANY,

June 10, 1904.

SCIENTIFIC NOTES AND NEWS.

THE daily papers announce, we trust correctly, that Dr. Harry Tevis will establish in San Francisco an aquarium in honor of his father, the late Lloyd Tevis, which will be the finest institution of the kind in the world, the cost being \$3,000,000 to \$4,000,000. The aquarium will, it is said, be built in Golden Gate Park. Mr. John Galen Howard, supervising architect of the University of California, is preparing the plans.

SIR JOSEPH DALTON HOOKER, the great British botanist, celebrated on June 30 his eighty-seventh birthday.

DR. KUNO FISCHER, professor of philosophy at Heidelberg, celebrated on June 23 his eightieth birthday.

DR. ROBERT KOCH has been made honorary professor of the University of Berlin as well as a member of the Academy of Sciences in succession to Virchow. There are only two other similar positions at Berlin, the one held by Professor Auwers, the astronomer, the other by Professor Van't Hoff, the chemist.

THE Paris Academy of Sciences has elected as corresponding members M. Eugène Tisserand in the section of agriculture and Dr. E. Metschnikoff in the section of anatomy and zoology.

DR. PIETRO BLASERNA, professor of physics at Rome, has been elected president of the Accademia dei Lincei.

It is stated in *Nature* that a committee has been formed in the Victoria University of Manchester to procure a portrait of Professor Osborne Reynolds, F.R.S., the senior member of the teaching staff, as a memorial of the