1. The United States Bureau of Education has amply proved its usefulness to the nation. Its publications are standard works of reference for school officers and teachers everywhere. The Bureau of Education should be made an independent administrative department, such as were the Departments of Agriculture and of Labor before their elevation to Cabinet rank. Sufficient appropriations should be made by the Congress to enable the Commissioner of Education to extend the scope and add to the usefulness of his work.

2. The condition of affairs in the Indian Territory, where fully three quarters of the population are reported as being without schools for their children, demands the immediate attention of the Congress. Provision should be speedily made by which the people of the Indian Territory will have power to establish and carry on a system of public schools so that all classes of citizens in the Indian Territory may have the educational opportunities which are enjoyed by their fellow-citizens in other parts of the country.

3. Teaching in the public schools will not be a suitably attractive and permanent career, nor will it command as much of the ability of the country as it should, until the teachers are properly compensated and are assured of an undisturbed tenure during efficiency and good behavior. A large part of the teacher's reward must always be the pleasure in the character and quality of the work done; but the money compensation of the teacher should be sufficient to maintain an appropriate standard of living. Legislative measures to give support to these principles deserve the approval of the press and the people.

4. The true source of the strength of any system of public education lies in the regard of the people whom it immediately serves, and in their willingness to make sacrifices for it. For this reason a large share of the cost of maintaining public schools should be borne by a local tax levied by the county or by the town in which the schools are. State aid is to be regarded as supplementary to, and not as a substitute for, local taxation for school purposes. In many parts of the United States a large increase in the amount of the local tax now voted for school purposes, or the levying of such a tax where none now exists, is a pressing need if there are to be better schools and better teachers.

5. The highest ethical standards of conduct and of speech should be insisted upon among teachers. It is not becoming that commercialism or self-seeking should shape their actions, or that intemperance should mark their utterances. A code of professional conduct clearly understood and rigorously enforced by public opinion is being slowly developed, and will, doubtless, one day control all teachers worthy of the name.

6. It is important that school buildings and school grounds should be planned and decorated so as to serve as effective agencies for educating not only the children but the people as a whole in matters of taste. The school is becoming more and more a community center, and its larger opportunities impose new obligations. School buildings should be attractive as well as healthful, and the adjoining grounds should be laid out and planned with appropriateness and beauty.

7. Disregard for law and for its established modes of precedure is as serious a danger as can menace a democracy. The restraint of passion by respect for law is a distinguishing mark of civilized beings. To throw off that restraint, whether by appeals to brutal instincts or by specious pleas for a law of nature which is superior to the laws of man, is to revert to barbarism. It is the duty of the schools so to lay the foundations of character in the young that they will grow up with a reverence for the majesty of the law. Any system of school discipline which disregards this obligation is harmful to the child and dangerous to the state. A democracy which would endure must be as law-abiding as it is liberty-loving.

THE AMERICAN ELECTROCHEMICAL SOCIETY.

The fourth general meeting of the American Electrochemical Society will be held at Niagara Falls, N. Y., September 17, 18 and 19, 1903. Thursday and Friday afternoons will be devoted to visits to power houses and

certain of the electrochemical plants which are open to visitors, and to other points of interest in the vicinity.

Thursday evening there will be a smoker and entertainment. Friday evening a dance and reception at the Cataract House. Saturday evening will be devoted to a trip to Niagara-on-the-Lake, Youngstown and Port Niagara by boat and trolley.

The following titles of papers have been announced:

P. G. SALOM: 'A New Type of Electrolytic Cell.'

DR. GEORGE P. SCHOLL: 'Manufacture of Ferro-Alloys in the Electric Furnace.'

DR. W. D. BANCROFT: 'Electrolytic Copper Refining.'

DR. W. H. WALKER: 'Electrometallurgy of Gold.'

F. A. J. FITZGERALD: 'Some Theoretical Considerations of Resistance Furnaces.'

F. AUSTIN LIDBURY: 'On the Supposed Electrolysis of Water Vapor.'

PROFESSOR O. W. BROWN: 'Efficiency of the Nickel Plating Tank.'

CARL HAMBUECHEN: 'Electrolysis of Sodium Hydroxide, by Alternating Current.'

PROFESSOR C. F. BURGESS: 'A Practical Utilization of the Passive State of Iron.'

DR. E. F. ROEBER: 'The Present Status of the Theory of Electrolytic Dissociation.'

C. J. REED: 'Berthelot's Law of Electrochemical Action.'

Other papers are expected from Dr. J. W. Richards, David H. Browne, Dr. L. Kahlenberg, Professor C. F. Burgess, A. H. Cowles and others. One session of the meeting will be devoted to the discussion of the theory of electrolytic dissociation, which will be opened by Dr. W. D. Bancroft.

It is announced that "negotiations have now been practically completed for supplying to all members free the Transactions of the London Faraday Society (the recently formed British Electrochemical Society), which are published in the *Electrochemist and Metallurgist* issued monthly. This is to be accomplished by supplying our Transactions free to the members of the Faraday Society. There will be no increase in our annual dues on account of this free exchange, and the benefit to be derived by our members is obvious. It is also evident that this new arrangement entails considerable additional expense upon our society. The continuance of this agreement will require not only the greatest economy in the administration of our funds, but also the active support of our individual members in maintaining and increasing our membership."

SCIENTIFIC NOTES AND NEWS.

THE following honorary doctorates have been conferred by the University of Heidelberg, on the occasion of the centenary of its reopening: Mathematics, M. G. Darboux, Paris; physics, Dr. R. T. Glazebrook, London; astrophysics, Sir William Huggins, London; chemistry, Professor S. Cannizzaro, Rome; mineralogy, Professor F. Fouqué, Paris; astronomy, Professor E. C. Pickering, Harvard University; zoology, Professor E. Maupas, Algiers; botany, A. Cogniaux, Nivelles.

DR. F. R. HELMERT, director of the Geodetic Institute at Potsdam, has been elected a foreign member of the Turin Academy of Sciences.

A *Festschrift* is in course of preparation to be presented to Professor J. P. Pawlow on the twenty-fifth anniversary of the beginning of his scientific work, which occurs next year. It is proposed at the same time to endow in his honor a prize for research in physiology.

A BRONZE medal is to be struck in honor of Professor Cornil, of Paris, to commemorate his work on the history of pathology and bacteriology.

PROFESSOR O. ISRAEL has been appointed curator of the Pathological Institute of the Berlin Charity Hospital.

DR. KARL SCHÖNBERG has resigned the chair of surgery at the University of Würzburg, owing to a stroke of paralysis.

DR. STUHLMAN has been appointed director of the Biological and Agricultural Institute at Amani in German East Africa.

DR. ROSANES, professor of mathematics and physics, has been elected rector of the University of Breslau.