standard cells, and instruments used in measuring resistance and electromotive forces. These standards are fundamental to all electrical measurements, and special stress has been laid upon the development of this department.

Rooms 28 and 29 are to be employed for the investigation and testing of standards of capacity and inductance, and for studying problems in which capacity and inductance are involved. Rooms 36, 38 and 39 are to be used for research in other alternating- or direct-current problems.

The third floor provides accommodation at one end for a museum, apparatus and supplies; at the other end for the library and reading room, and in the central portion for the offices of administration. These rooms were placed on the third floor, in order to devote the two lower floors to laboratory purposes—where freedom from mechanical disturbance is of greater importance. The library measures 28×48 feet.

Room 61 on the fourth floor is to be devoted to researches on photometric standards, work which will be carried on in connection with the photometric laboratory of the mechanical building. Room 60 will accommodate the work on mercurial thermometers, including ordinary thermometers, precision thermometers, and clinical thermometers. Room 70, at the east end of this floor, is a large general laboratory which may be used for either physical or chemical investigations. The other rooms of this floor will be fitted up as a chemical laboratory, for work in analytical, physical and electrochemistry.

On the fifth floor is to be located a commodious lecture room, which may also be used to some extent as a laboratory; an apparatus room, and two or three storage rooms.

In addition to the heating and ventilating system, in which each room has a flue for supplying fresh air (heated or cooled as the case may be), and a second flue for carrying air away from the room, there is to be a separate exhaust system with a connection to each laboratory room, and also to each toilet room, the storage battery rooms, the hoods of the chemical laboratories, etc. These exhaust flues open down into the basement, where they are gathered into one large duct, which is carried through the tunnel to an exhaust fan in the engine room. This fan will run at a comparatively high speed, and will insure a positive draft at each inlet to the system.

Much thought has also been given to such features of the laboratory equipment as plumbing, work tables, cases, etc., but space forbids giving any particulars.

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AMERICAN PHILOSOPHICAL ASSOCIATION.

Over fifty members attended the second meeting of the American Philosophical Association, held in Washington, in affiliation with the American Society of Naturalists and the other societies meeting under the auspices of the American Association for the Advancement of Science, on December 30 and 31. The affiliation of the association with the scientific societies at this its first meeting following the meeting last Easter, at which it was organized, is significant of the close relation felt to exist between philosophy and the special sciences, a significance emphasized by the fact that a member of the association was this year president of the Society of Naturalists. Probably there was something of the old contempt for abstract speculation on the part of men of science in the good-natured laughter which broke out at the dinner of the naturalists, when it was announced that the psychologists and phi-

losophers were assigned the table at the extreme left of the hall, separating, it was suggested, the philosophic goats as far as possible from the scientific sheep; if so, the laughter might have been turned the other way when, on entering the hall, it was found that the extreme left was at the right of all the presidents of all the scientific societies seated at the high table. Really the present time, symbolized by this affiliation, seems most favorable for mutual understanding and a clearing up of opinion on the important subject of the relations of philosophy and the special sciences. The philosophers, on their part, are now pretty generally agreed that speculation must keep in close touch with experience and with the advances of the natural sciences. Even the most abstract and metaphysical of idealists profess that their systems merely interpret experience, and, as they assume that experience, when properly interpreted, is self-consistent, they too demand that philosophy and science shall be, from the ultimate point of view, one and harmonious, and eagerly endeavor to explain away the glaringly apparent contradictions. Scientists, on the other hand, are becoming increasingly aware of the limitations of their special fields of research and of the purely methodological character of many of their most fundamental hypotheses. A striking illustration of this was given in the Washington address of President Remsen before the Chemical Society, in which, speaking of the atomic hypothesis, he is reported to have said that the conception of the atom had been proved to be illogical, but was, nevertheless, to be retained for the present as a useful device; but as to the dynamics of atoms he frankly admitted that we knew nothing, that they possibly moved in some mysterious way, and that perhaps all chemical phenomena might be due to these motions. There is clearly here little left of the old dogmatism. And as the philosophical aspects of natural science are being more and more recognized by students of philosophy, so, it is to be hoped, the scientific character of philosophy will come to be more and more recognized by men of science. For the function of philosophy is, in fact, largely this, to criticise the categories of science and to develop, from a point of view above that of all the special sciences, the knowledge furnished by every department of experience into a comprehensive science of experience as a whole, *Wissenschaft,* in the large sense of the term.

One of the sessions at the meeting was devoted almost exclusively to one of these aims, the handling, namely, of fundamental conceptions in natural science. Dr. Singer, of the University of Pennsylvania, attempted, in a thoughtful paper, to define the ideal of mechanical explanation; Brother Chrysostom, of Manhattan College, criticised the empirical view of causation; Dr. Spaulding, of Columbia, sought to demonstrate the dogmatic character of the principle, *ex nihilo nihil fit;* and Professor Bawden, of Vassar, defended by new arguments his functional theory of psycho-physical parallelism. At another session questions of a still more general logical nature were discussed, including a critique of cognition and its principles by Dr. Karl Schmidt, of Harvard; an exposition of the function of æsthetic form in judgments of value by Professor R. MacDougall, of New York University; and an examination of logical method in metaphysics by Professor Aikins, of Western Reserve University, the conclusions of the last being decidedly negative as to metaphysics. But the chief interest of the meeting attached to the session of Tuesday afternoon, when the subject, 'What should be our attitude as teachers of philosophy towards religion?'

was discussed by Drs. Miller and Royce, of Harvard; President Patton, of Princeton, and Dr. William T. Harris, of Washington, and to that of Wednesday morning, when the association met with the American Psychological Association and listened to important papers by Professors Münsterberg, Dewey, Ladd, Hibben and Jastrow. For both of these sessions larger rooms had to be secured than those originally assigned to either association. These sessions brought out some interesting differences of view. In the discussion, for instance, Dr. Miller contended that religion and philosophy were entirely independent. Dr. Patton, on the other hand, maintained that religion, if worth anything, is a rational thing and must be rationalized. Professor Royce, in a felicitously worded paper, defined the function of the philosopher in respect to religion as preeminently that of a sympathetic but clear and judicial intellect. The conflicting positions assumed by Professors Münsterberg and Dewey in their papers at the joint session, the conflict having to do with certain aspects of the fundamental question of the relation of knowledge and reality, led to an animated debate in which, besides the principals, Professors Baldwin and Creighton also took part, while Professor Ladd's criticism of psycho-physical parallelism called out a sharp counter-criticism from President G. Stanley Hall. Such discussions are among the most instructive events in a meeting of this sort and exert a decidedly clarifying tendency, even though no very positive result is reached at the time. Without them, papers frequently seem wanting in point, unless they be of such a rarely clear and convincing character as the paper by Professor Hibben, of Princeton, on the philosophical bearings of Ostwald's theory of energetics, or like the address of the president, Professor Ormond, of Princeton, on 'Philosophy and its Correlations,' of which there can be no criticism, but only praise. Of the other papers read at the meeting, it is enough to say that one, by Professor Sneath, of Yale, was on an ethical subject; one, by Professor Horne, of Dartmouth, on the metaphysical aspects of education; two on subjects connected with the philosophy of religion (by Professor French, of Colgate, and Professor Ladd, of Yale), and one a lively criticism of a recent work on personal idealism, the final paper of the sessions, by Professor Caldwell, of Northwestern University. The papers were thus of a very varied character, conducive to the maintenance of interest during the packed four sessions of the meeting, and yet perhaps leaving a somewhat bewildering impression, if there were any one besides the president forced to listen to them all.

One of the most enjoyable features of the meeting was the smoker at the Riggs House immediately following the address of the president on Tuesday evening. The garden of Epicurus could scarcely have afforded a happier combination of philosophical and simply human and friendly social intercourse.

The association elected the following officers for the ensuing year:

President—Professor Josiah Royce (Harvard).

Vice-President—Dr. Edgar A. Singer, Jr. (Pennsylvania).

Secretary-Treasurer—Professor H. N. Gardiner (Smith).

Members of the Executive Committee—Professors William A. Hammond (Cornell) and F. J. E. Woodbridge (Columbia).

The time and place of the next meeting were left with the executive committee.

H. N. Gardiner,
Secretary.