in advance of a meeting been so abundant and so wholly satisfactory as that sent in in connection with the Atlantic City meeting. The cordial cooperation now obtaining between the members of the association and the Press Service is indeed most gratifying.

> AUSTIN H. CLARK, Director of the Press Service

THE SCIENCE EXHIBITION

THE Science Exhibition at Atlantic City will be held in the Grand Ballroom of the Municipal Auditorium from Tuesday noon, December 27, until Friday evening at 8:00 P. M., December 30. The exhibits are divided into three categories, those pertaining to science and research, those from commercial concerns and special demonstrations of hobbies of science.

The exhibits on cosmic rays will perhaps be more complete in representing recent work than in any other field. Professor A. H. Compton will show some of the apparatus used in his recent research work in measuring these rays in widely distributed parts of the earth. There will be shown the steel ionization chamber about four inches in diameter filled with argon at thirty atmospheres pressure. An electrometer measures the intensity of the cosmic rays.

The Bartol Research Foundation of the Franklin Institute will have two demonstrations with cosmic rays; one which measures and records coincident passages of the cosmic rays through two chambers which are in line. This will enable the visitors to see the records of the cosmic rays coming from a given direction at Atlantic City. The other demonstration is a cosmic ray hodoscope or track-viewer. In this demonstration the visitors will be enabled to see the path as made by the cosmic rays.

Dr. Robert A. Millikan, it is expected, will find it possible to have in the booth from the California Institute of Technology some of the equipment that he has used in his cosmic ray investigations.

The Rice Institute will have the Geiger-Counter Cosmic-Ray Apparatus, developed by Dr. L. M. Mott-Smith. This is a demonstration of a triple coincidence Geiger-Counter for the study of cosmic radiation. It will be shown in this demonstration that the cosmic radiation comes in most strongly in the vertical direction, and that the particles which produce the coincidence travel along nearly rectilinear paths. This equipment also gives a measure of the intensity of this radiation. Dr. Mott-Smith and L. G. Howell, jointly with Captain A. W. Stevens, of the U. S. Air Corps, will have a recording cosmic ray electroscope. This is a high pressure electroscope and photographic mechanism used in airplanes for recording cosmic ray intensity at high altitudes. Another exhibit that every member of the association will be interested in seeing is that of Professor Walter R. Miles, of the Institute of Human Relations at Yale University. Professor Miles is demonstrating the Flickerometer and the Kinephantoscope, but the outstanding feature of this exhibition is an actual, working psychological laboratory in which the members of the association and others may have psychological measurements made upon themselves with particular reference to mental alertness and personality tests. This exhibition should be as interesting as that of Dr. A. F. Blakeslee at New Orleans.

There are nineteen commercial exhibitors, in spite of economic conditions that with many industries have completely stopped the exhibition business. We greet for the first time this year some exhibitors who have used science in their business. As an example, the Ford Motor Company will show work in connection with the Johannsen gages as a part of the product of their gage factory.

In the Science Library will be seen practically all the science books published in America in 1932. The number is approximately 324.

Each day at the tea hour there will be demonstrations in connection with the hobbies of scientific men. On Tuesday at 5:00, Dr. W. F. G. Swann, president of the American Physical Society, will appear with his 'cello. He will tell some things in connection with this hobby and will give demonstrations. On Wednesday, Dr. Dayton C. Miller, professor of physics at the Case School of Applied Science, will appear with about forty flutes and will tell something of the manner in which he mounted and rode his hobby. He will also give some demonstrations on these instruments. The same afternoon Professor David Eugene Smith, of Columbia University, will tell about one of his hobbies, namely, Oriental books. Professor Smith has ridden more than one hobby successfully. The mathematicians all know of his collection of historical instruments pertaining to mathematics and astronomy. On Thursday Dr. C. N. Hickman, of the Bell Telephone Laboratories, will tell how he got interested in his hobby, archery. He will demonstrate a machine that he has used in obtaining the most precise information known about bows and arrows. Moreover, he will give some demonstrations such as we have not seen since the time of William Tell. On Friday, Mr. Austin H. Clark, of the U. S. National Museum, will appear with his butterflies, telling how he became interested in these and some unusual circumstances in connection with this hobby.

> F. C. BROWN, Chairman of the Committee on the Science Exhibition