

and London, England, the proportion was 1 to 21,000. Taking the last fifty years, we find that for every 100,000 inhabitants of France there were, from 1841-45, 9 suicides; from 1846-50, 10; from 1861-70, 13; from 1871-75, 15; from 1876-80, 17; for 1889, 21; for 1893, 22; for 1894, 26. Durkheim shows that from 1826 to 1890 the number of suicides in Belgium increased 72 per cent.; in Prussia, 411 per cent.; in Austria, 238 per cent.; in France, 318 per cent.; in Saxony, 212 per cent., while in Sweden and Denmark the increase has been the lowest, viz., 72 and 35, respectively. That religion seems to wield an important influence in connection with self-murder is evident from the fact that in Roman Catholic communities suicide is less prevalent."

THE *Journal of Physical Chemistry*, November, 'On the Solubility of Manganous Sulphate,' by F. G. Cottrell. A determination of the solubility of the hydrates containing 1, 4, 5 and 7 molecules of water of crystallization—no other hydrates were found. The salt of commerce is sometimes that with four, sometimes that with five molecules of water. 'Catalysis and Chemical Energy,' by Oscar Loew. In catalysis "it is the oscillations of the free heat energy of the atmosphere which are modified by certain peculiarities of the platinum atom in such a manner that they can pass still more easily than they usually do into the oscillations of chemical energy. The catalytic action of certain organic compounds is due to the chemical energy of labile atoms." 'The Reaction between Chloroform and Potassium Hydroxide,' by A. P. Saunders. In all probability the action proceeds in stages, in each of which only two molecules react together. 'Vapor-Pressure Relations in Mixtures of Two Liquids, III,' by A. Ernest Taylor. Attention may well be called to the fact that to almost every article contained in this *Journal* since its inception is appended a brief summary of the results obtained and conclusions drawn. It would be a great advantage if this practice prevailed in all our scientific journals.

THE Medical Society of New York University has planned the establishment of a quarterly journal to be called *The New York Uni-*

versity Bulletin of the Medical Sciences and to be edited by a committee of the Society under the business management to be designated by the University. The contents of the Bulletin are to be: (1) Original articles directly contributed to the bulletin. (2) Abstracts or *extenso* reproductions of articles originally published elsewhere. (3) Short communications made at the meetings of the Medical Society. (4) Brief minutes of those meetings. (5) Reports on methods devised or tested in the departments of the medical college. (6) A reference list of publications by those connected with the medical college.

SOCIETIES AND ACADEMIES.

NATIONAL ACADEMY OF SCIENCES.

At the winter meeting of the National Academy of Sciences, held at Brown University, Providence, R. I., on November 13, 14 and 16, the following program was presented:

I. 'Investigations of Light and Electricity with the Aid of a Battery of Twenty Thousand Cells,' by J. Trowbridge.

II. 'Progressive Evolution of Characters in the Young Stages of Cephalopods,' by Alpheus Hyatt.

III. 'Descriptive Method of Presenting the Phenomena of the Cycle of Evolution among Cephalopods,' by Alpheus Hyatt.

IV. 'The Porous Cup Voltameter,' by T. W. Richards.

V. 'An Account of the Study of Growing Crystals by Instantaneous Microphotography,' by T. W. Richards.

VI. 'Stereographic Projection and Some of its Possibilities from a Graphical Standpoint,' by S. L. Penfield.

VII. 'On the Development of the Pig,' by C. S. Minot.

VIII. 'Normal Plates illustrating the Development of the Rabbit and the Dogfish,' by C. S. Minot.

IX. 'Note on the Energy of Recent Earthquakes,' by T. C. Mendenhall.

X. 'Spectrum of Sodium in a Magnetic Field,' by A. A. Michelson.

XI. 'A Report of the Spectrum Work carried on with the Aid of a Grant from the Bache Fund,' by H. A. Rowland.

XII. 'On the Explanation of Inertia and Gravitation by Means of Electrical Phenomena,' by H. A. Rowland.

XIII. 'Distribution and Phylogeny of *Limulus*,' by A. S. Packard.

XIV. 'Male Preponderance (Androrhopy) in Lepidopterous Insects,' by A. S. Packard.

XV. 'The Synthesis and Reactions of Sodium Acetate Ester, and their Relation to a New Interpretation of Chemical Metathesis,' by A. Michael.

XVI. 'On the Genesis of Matter,' by A. Michael.

XVII. 'Demonstration of the Projection of One Grating by Another,' by C. Barus.

XVIII. 'Exhibition of Certain Novel Apparatus; A Wave Machine; An Expansion Lens; A Recording System of Two Degrees of Freedom; A Tube Showing Colored Cloudy Condensation,' by C. Barus.

XIX. 'On Stability of Vibration and on Vanishing Resonance,' by C. Barus.

XX. 'Hysteresis-like Phenomena in Torsional Magnetostriction and their Relation to Viscosity,' by C. Barus.

XXI. 'Progress in the Echelon Spectroscope,' by A. A. Michelson.

XXII. 'Report on the Meeting of the International Association of Academies held at Paris, July 31, 1900,' by J. M. Crafts.

NEW YORK SECTION OF THE AMERICAN
CHEMICAL SOCIETY.

THE regular meeting of the New York Section of the American Chemical Society was held October 5th at the Chemists' Club.

The following papers were read: 'Dr. Meyer's Tangent System of Sulphuric Acid Manufacture,' by C. Glazer; 'Note on the Determination of Zinc in the Franklin, New Jersey, Ores by the Ferrocyanide Method,' by Wm. H. Bassett.

The chair appointed C. Richardson, P. de P. Ricketts and M. Loeb a committee on prizes.

M. T. BOGERT,
Sec'y pro tem.

At the meeting on November 9th, Dr. C. A. Doremus presided and over fifty members were present. 'A Brief Review of Antipyrine and its more Important Derivatives,' was the subject of a paper by D. C. Eccles. Referring to the matter of papers to be read before the Section during the season, Dr. McMurtrie said that every chemist actively engaged in any subject could bring topics before the Section, which would be of great interest to others, and of no less interest because of not being in shape for publication in the journal. And, further, he urged the members to realize that

interesting meetings required that each should furnish his share of the work.

The chairman, Dr. Doremus, said he thought the opportunity of bringing their work before the Society was not appreciated by the younger members, who had better seek the opportunity in their own interest than wait for invitation.

Special announcement was made of the death of Dr. E. R. Squibb, so long an enthusiastic member and active co-worker in the Society. Personal reminiscences were given by Dr. Rice and by Messrs. Bogert, McMurtrie, Breneman, Eccles and Doremus.

It was moved and seconded that a committee be appointed to draw up suitable resolutions expressing the Society's appreciation of Dr. Squibb's character, of his services to chemical science, and of the loss sustained by the Society in his death. And, further, that the resolutions should be engrossed in duplicate—a copy to be sent to his family and one to be preserved by the Society.

DURAND WOODMAN,
Secretary.

NEW YORK ACADEMY OF SCIENCES.
SECTION OF ASTRONOMY, PHYSICS AND
CHEMISTRY.

A MEETING of the Section was held on November 5th, at 12 West 31st Street, New York.

A paper was read by Dr. F. L. Tufts, of Columbia University, on 'The Flow of Air through Granular Materials at Different Pressures.' These experiments were made in connection with others on the transmission of sound through the same materials. Three different materials were experimented on, composed of lead shot of three sizes, the diameters of the shot being respectively 4.37 mm., 2.79 mm., and 1.22 mm. The shot was placed in a tube and air was forced through at different pressures, the rate of flow of air being measured by a gas meter and the pressure differences by a water manometer. It was found that for a given size of shot and a given pressure gradient, the rate of flow was independent of the length of the column of shot through which the air flowed. The rate of flow, however, in the three cases experimented with, did not increase

as rapidly as the pressure gradient. This was more noticeable with the coarse shot than with the finer. For pressure gradients of about 0.01 cm. of water pressure per centimeter of length of material, the rate of flow through the coarsest shot was ten times the rate through the finest, while for a pressure gradient fifty times as great the rate of flow was a little less than three times as great in the coarsest as in the finest. With each size of shot the space occupied by air was about 39 per cent. of the total space occupied by the shot.

WM. S. DAY,
Sec'y of Section.

DISCUSSION AND CORRESPONDENCE.

A DISCLAIMER.

THE attention of the undersigned has been called to the fact that an organization known as 'The American College of Sciences,' situated in Philadelphia, is issuing circulars advertising a course of instruction in hypnotism as prepared in part by them. These circulars contain many statements about hypnotism and about the advantages to be derived from its study and practice which are not justified by the articles written by the undersigned, which in their judgment cannot be substantiated by any facts known to science, and which they believe to be in the highest degree misleading. Furthermore, the undersigned are of the opinion that the practice of hypnotism by the general public is attended by dangers which have no compensating advantages, and would in no case countenance any scheme which encourages its practice under such conditions. They feel it incumbent upon them, therefore, to make a public statement of the circumstances under which these articles were written.

Each of them was requested, individually, by 'The New York State Publishing Company,' of Rochester N. Y., to prepare an article for a collection of such articles. Inquiries made of this Company elicited no suggestion that the collection was to be issued by any other than the usual method of publication and sale, and the articles were contributed by the undersigned without their having any knowledge or suspicion that they would be used as constituent parts of a course of instruction in hypnotism.

Had they known that they would be so used, they would have refused to contribute the articles in question. They now disclaim all responsibility for the methods adopted by the American College of Sciences and for all statements made in its publications, excepting only those found in the several articles above referred to, and for them their individual authors are alone responsible.

While the position of the undersigned on these questions is perhaps already sufficiently well known to the academic world, they feel that this disclaimer is due to the general public.

J. MARK BALDWIN, Princeton University.

W. P. CARR, Columbian University.

E. W. SCRIPTURE, Yale University.

J. W. SLAUGHTER, University of Michigan.

ALFRED REGINALD ALLEN, Philadelphia Polyclinic Hospital.

GABRIEL CAMPBELL, Dartmouth College.

ARTHUR MACDONALD, U. S. Bureau of Education.

JAMES H. LEUBA, Bryn Mawr College.

ROBERT M. YERKES, Harvard University.

CLARK WISSLER, Columbia University.

ERNEST CARROLL MOORE, University of California.

EDWARD H. ELDRIDGE, Temple College.

WILLIAM ROMAIN NEWBOLD, University of Pennsylvania.

CURRENT NOTES ON METEOROLOGY.

A RECENT STUDY OF ECLIPSE METEOROLOGY.

'A DISCUSSION on the Observations recorded during the Solar Eclipse of January 22, 1898, at 154 Meteorological Stations in India' is the title of Vol. XI, Part II, of the Indian Meteorological Memoirs (Calcutta, 1900). This is a report by Mr. John Eliot, Meteorological Reporter to the Government of India, consisting of 66 pages of text and tables, together with 38 plates showing curves of temperature, pressure, cloudiness, humidity, etc., at different stations. In these plates the actual and probable curves of the diurnal variation of the different weather elements are given for a large number of stations, so that the effects produced by the eclipse can easily be seen. A brief summary of results gives in a very condensed form the most important points brought out in Mr. Eliot's study.