Differential Equations that occur in Mathematical Physics. By Professor A. Macfarlane, Lehigh Univ., South Bethlehem, Pa.

7. Condition that the Line common to *n-1* planes in an *n*-space may lie on a given Quadric Surface in the same space. By Dr. Virgil Snyder, Ithaca, N. Y.

8. The Psychology of the Personal Equation. By Professor T. H. Safford, Williamstown, Mass.

9. Compound Determinants. (Preliminary Communication.) By Professor W. H. Metzler, Syracuse, N. Y.

10. Waters within the Earth. By W. S. Auchincloss, C.E., Philadelphia, Pa.

11. On the Secular Motion of the Earth's Magnetic Axis. By Dr. L. A. Bauer, Univ. of Cincinnati, Cincinnati, O.

12. Simple Expressions for the Diurnal Range of the Magnetic Declination and of the Magnetic Inclination. By Dr. L. A. Bauer, Univ. of Cincinnati, Cincinnati, O.

13. The Theory of Perturbations and Lie's Theory of Contact-transformations. By Dr. E. O. Lovett, Baltimore, Md.

14. On Rational Right Triangles. No. I. By Dr. Artemas Martin, U. S. Coast Survey, Washington, D. C.

15. Some Results in Integration expressed by the Elliptic Integrals. By Professor James McMahon, Cornell Univ., Ithaca, N. Y.

16. Modification of the Eulerian Cycle due to Inequality of the Equatorial Moments of Inertia of the Earth. By Professor R. S. Woodward, Columbia Univ., New York.

17. Integration of the Equations of Rotation of a Non-rigid Mass for the case of Equal Principal Moments of Inertia. By Professor R. S. Woodward, Columbia Univ., New York.

18. General Theorems concerning a certain class of Functions deduced from the properties of the Newtonian Potential Function. By Dr. J. W. Glover, Ann Arbor, Mich.

19. The Importance of Adopting Standard Systems of Notation and Coordinates in Mathematics and Physics. By Professor Frank H. Bigelow, U. S. Weather Bureau, Washington, D. C.

20. A Remarkable Complete Quadrilateral among the Pascal Lines of an Inscribed Six-point of a Conic. By Professor R. D. Bohannan, Columbus, Ohio.

James McMahon,
Secretary of the Section.

Cornell University.

SECTION B.—PHYSICS.

Address of the Vice-President: Long Range Temperature and Pressure Variables in Physics. By Dr. Carl Barus, Brown University, Providence, R. I.

1. Screening Effects of Induced Currents in Solid Magnetic Bodies in an Alternating Field. By Mr. Charles P. Steinmetz, General Electric Company, Schenectady, N. Y.

2. The Design, Construction and Test of a 1250 Watts Transformer. By Professor Henry S. Carhart, Univ. of Mich., Ann Arbor, Mich.

3. Electrolytic Action in a Condenser. By Dr. K. E. Guthe, Instructor in Physics, Univ. of Mich., Ann Arbor, Mich.

4. On the Velocity of Light in a Magnetic Field. By Professor E. W. Morley, Cleveland, Ohio; Professor H. T. Eddy, Minneapolis, Minn., and Professor D. C. Miller, Cleveland, Ohio.

5. The Magnetic Survey of Maryland. By Dr. L. A. Bauer, Univ. of Cincinnati, Cincinnati, Ohio.

6. The Transmission of Radiant Heat by Gases at Varying Pressures. By Mr. Charles F. Brush, Cleveland, Ohio.

7. On the Rate at which Hot Glass absorbs Superheated Water. By Professor Carl Barus, Brown Univ., Providence, R. I.

8. A New Method of determining the Specific Heats of Liquids. By Robert L. Litch, A.M., Bethlehem, Pa.

9. On the Coefficient of Expansion of Certain Gases. By Professor Edward W. Morley, Cleveland, Ohio, and Professor Dayton C. Miller, Cleveland, Ohio.

10. The Effect of Heat on the Elastic Limit and Ultimate Strength of Copper Wire. By Professor Frank P. Whitman, Adelbert College, Cleveland, Ohio, and Mary C. Noyes, Ph.D., Lake Erie Seminary, Painesville, Ohio.

11. A Method of obtaining Capillary Canals of Specified Diameter. By Professor Carl Barus, Brown Univ., Providence, R. I.

12. Kites and their Use by the Weather

Bureau in Explorations of the Upper Air. By Professor C. F. Marvin, U. S. Weather Bureau, Washington, D. C.

13. Experiments upon the Acetylene-Oxygen Standard of Light. By Dr. Clayton H. Sharp, Cornell Univ., Ithaca, N. Y.

14. Arc Spectra. By Professor Arthur L. Foley, Univ. of Indiana, Bloomington, Indiana.

15. On the Brightness of Pigmented Surfaces under Various Sources of Illumination. By Professor Frank P. Whitman, Adelbert College, Cleveland, Ohio.

16. Note on the Construction of a Sensitive Radiometer. By Professor Ernest Fox Nichols, Colgate Univ., Hamilton, N. Y.

17. Photographs of Manometric Flames. By Dr. Edward L. Nichols, Cornell Univ., Ithaca, N. Y., and Professor Ernest Merritt, Ithaca, N. Y.

18. The Discharge of Electrified Bodies by X-rays. By Dr. C. D. Child, Cornell Univ., Ithaca, N. Y.

19. A Final Determination of the Relative Lengths of the Imperial Yard of Great Britain and the Meter of the Archives. By Professor William A. Rogers, Colby Univ., Waterville, Me.

20. The Electric Conductivity of certain Specimens of sheet Glass, with reference to their Fitness for Use in Static Generators. By Professor Dayton C. Miller, Case School of Applied Science, Cleveland Ohio.

21. Graphical Treatment of Alternating Currents in Branch Circuits in case of Variable Frequency. By Professor H. T. Eddy, Minneapolis, Minn.

22. On Simple Non-Alternating Currents. By Professor Alexander Macfarlane, Lehigh University, South Bethlehem, Pa.

23. Exhibition of Instruments for determining the Frequency of an Alternating Current. By Professor George S. Moler, Ithaca, N. Y., and Dr. Frederick Bedell, Cornell University, Ithaca, N. Y.

24. The predetermination of Transformer Regulation. By Dr. F. Bedell, Cornell University, Ithaca, N. Y.; Professor R. E. Chandler, Salem, Va., and Mr. R. H. Sherwood, Jr., Brooklyn, N. Y.

25. The effect of Pressure on the Wave-lengths of the lines of the Emission Spectra of the Elements. By Dr. W. J. Humphreys, Johns Hopkins University, Baltimore, Md.

26. A New Form of Coal Calorimeter. By Charles L. Norton, Massachusetts Institute of Technology, Boston, Mass.

27. Notes on the Recent History of Musical Pitch in the United States. By Professor Chas. R. Cross, Massachusetts Institute of Technology, Boston, Mass.

28. A New Form of Harmonic Analyzer. By Dr. Frank A. Laws, Massachusetts Institute of Technology, Boston, Mass.

29. A Comparison of Rowland's Thermometers with the Paris Hydrogen Scale, and the Corresponding Correction to his Value of the Mechanical Equivalent of Heat. By Dr. W. S. Day, Johns Hopkins University, Baltimore, Md.

30. The Determination of the Surface Tension of Water, and of Certain Aqueous Solutions, by means of the Method of Ripples. By Dr. N. Ernest Dorsey, Johns Hopkins University, Baltimore, Md.

31. The Series of International Cloud Observations made by the U. S. Weather Bureau, and their relation to Meteorological Problems. By Professor Frank H. Bigelow, U. S. Weather Bureau, Washington, D. C.

32. The Effects of Tension and Quality of the Metal upon the Changes in Length produced in Iron Wires by Magnetization. By Byron Briggs Brackett, Johns Hopkins University, Baltimore, Md.

33. Measurement of Small Gaseous Pressures. By Charles Brush.

FREDERICK BEDELL,
Secretary of the Section.

CORNELL UNIVERSITY.

SECTION C.—CHEMISTRY.

Address of the Vice-President: Expert Testimony. By Professor W. P. Mason, Rensselaer Polytechnic Inst., Troy, N. Y.

The meetings of the Section will be held in conjunction with those of the *American Chemical Society.*

The papers of the Section will be divided into sub-heads with following committee in charge: A. B. Prescott, Organic Chemistry; W. A.