ground water above the edge of that clay mass, less the loss in transmission.

3. The dip of the strata is, therefore, immaterial, and flows, in many cases, are produced against or up the dip.

4. The slope of this ground water table is so precipitous at the heads of many of the deep reentrant bays on the north shore that a slight difference in porosity is sufficient to determine an artesian horizon, and wells in such situations and which penetrate nothing but sand and gravel are frequently artesian.

ALFRED H. BROOKS,
Secretary.

THE PHILOSOPHICAL SOCIETY OF WASHINGTON.

THE five hundred and eighty-fifth meeting was held April 22 and 23 jointly with the American Physical Society. Reports of the papers read during the day sessions will appear in the proceedings of that society.

On Friday evening Mr. Alexander Graham Bell delivered a lecture on 'Tetrahedral Kites,' exhibiting numerous small kites and the cells out of which large structures are built up, and many lantern views of the large kites he has flown at his experiment station in Nova Scotia. The noteworthy features developed by the experiments were the great strength combined with lightness of the kites for a given lifting power; their ability to rise more nearly vertically above the point of attachment at the ground than other forms of kites; and their remarkable steadiness, especially when the broadside is toward the wind. The speaker intends to carry on his experiments during the coming summer.

CHARLES K. WEAD,
Secretary.

THE ASSOCIATION OF OHIO TEACHERS OF MATHEMATICS AND SCIENCE.

THE association was organized at a meeting held in Columbus, April 2, 1904. At this meeting the following papers were read and discussed:

PRES. CHARLES S. HOWE, The Case School of Applied Science, Cleveland: 'The Effect of Entrance Examinations upon the Mathematical Work of the Preparatory School and the College.'

DR. GEORGE BRUCE HALSTED, Kenyon College, Gambier: 'The Value of Non-Euclidean Geometry to the Teacher.'

PROFESSOR FRANKLIN I. JONES, University School, Cleveland: 'The Laboratory Method in High School Mathematics.'

In his paper Dr. Halsted pointed out that the results of the recent studies on the foundations of geometry now permit a simple and rigorous treatment of elementary geometry without the introduction of either continuity or limits. The constructions of elementary geometry are possible without the compasses by means of the rules alone.

THE NORTHEASTERN SECTION OF THE AMERICAN CHEMICAL SOCIETY.

THE fifty-second meeting of the section was held Friday evening, April 22, at Huntington Hall, Massachusetts Institute of Technology, Boston, with President W. H. Walker in the chair. About 650 members and friends were present. Professor W. P. Bradley, of Wesleyan University, gave an address on 'Efficiency Tests of the Wesleyan Liquid Air Plant and Demonstration of Liquid Air,' in which he described, and illustrated with lantern slides, the plant at Wesleyan University for the manufacture of liquid air, while the latter part of the lecture was devoted to a description of the properties of liquid air, which were demonstrated by numerous experiments.

ARTHUR M. COMEY,
Secretary.

DISCUSSION AND CORRESPONDENCE.

ELLIPTICAL HUMAN ERYTHROCYTES.

I WAS much interested in a note by Professor Melvin Dresbach, of the Ohio State University, published in SCIENCE, March 18, 1904, giving an account of examinations of human blood, in which about ninety per cent. of the red corpuscles were oval. What rendered this observation remarkable—and indeed unique—was the statement that:

The student in whose blood these corpuscles were found was a healthy mulatto about twenty-two years of age. His brother, who attended the university a few years ago, had normal red blood cells. Other than this no family history is at hand.

I wrote to Professor Dresbach a few days after reading this account, and he most kindly sent me a slide, dated January 10, 1903, for examination. Professor Dresbach wrote:

> The young man who furnished these peculiar cells was taken ill and left the city, and consequently I never saw him again. I have since learned that he died * * *.

It is unfortunate that there is no account of the disease that proved fatal in this case; and it is to be hoped that this defect in the history may be supplied later. It is well known that erythrocytes are often deformed—and sometimes many of them are oval—in certain blood diseases. To cite authorities that can be readily consulted, Osler writes, in treating of 'Progressive Pernicious Anemia':

> Microscopically the red blood-corpuscles present a great variation in size, and there can be seen large giant forms, megalocytes, which are often ovoid in form, measuring eight, eleven or even fifteen micromillimeters in diameter—a circumstance which Henry regards as indicating a reversion to a lower type. Laache thinks these pathognomonic, and they certainly form a constant feature. ('The Principles and Practice of Medicine,' New York, 1895, p. 729.)

These changes in the form of the corpuscles have been described under the name of poikilocytosis, and are referred to by Flint ('Principles and Practice of Medicine,' Philadelphia, 1886, pp. 60 and 386), in connection with pernicious anemia. Ewing ('Pathology of the Blood,' Philadelphia, 1903, p. 256) writes:

> Sometimes in non-infectious purpura hemorrhagica the red corpuscles are undersized and many are oval.

In view of these facts, it seems impossible to accept the proposition that the subject of the observation noted 'was a healthy mulatto.' He certainly was affected with poikilocytosis. As the oval corpuscles in this case measured 10.3 by 4.1 microns—certainly not enlarged, the normal corpuscles being seven to eight microns in diameter—it is possible that the poikilocytosis was a condition antecedent to a severe purpura hemorrhagica, which was the immediate cause of death. In pernicious anemia, the number of corpuscles is diminished and may become as low as 500,000 per cubic millimeter, instead of 5,000,000, which is the normal average, and megalocytes are nearly always found. Still, as there are no observations—with which I am acquainted, at least—in regard to the blood in pernicious anemia, before grave and distinctive symptoms have appeared, death may have been due to this disease.

AUSTIN FLINT.

CORNELL UNIVERSITY MEDICAL COLLEGE,
NEW YORK, April 25, 1904.

CONVOCATION WEEK.

THE Editor of SCIENCE writes: "Among the points on which an expression of opinion would be useful are: (1) Should the American Association maintain its sections for special papers or should these be left to the special societies? (2) Should the association attempt to popularize science, and if so how? (3) Should the association include in its scope education, economics, philology, etc.? (4) Should the association meet in summer or winter or both? (5) Should the association meet in regional sections, with only occasional joint meetings? (6) What should the association do to promote cooperation among men of science and the advancement and diffusion of science?"

After reading the great number of diverse opinions that have appeared in SCIENCE concerning the condition of the American Association and the nature of its work, every subscriber must begin to think something is wrong somewhere, though he may be utterly at a loss to know what remedies to prescribe.

The writer can not help thinking that most that has lately been written on the subject has added to the apparent unrest, on the whole very likely doing more harm than good. Each writer has committed himself to a certain policy, which he thinks should be adopted. With all this talk, it is not difficult to show that large additions of members have been made during the period of special or affiliated societies. Several of these societies have been the means of increasing the membership of the American Association instead of decreasing it.