

It was shown to be possible to perform any operation of plane perspective with a sliding linkage of three rods and by a slight modification of the pantagraph to obtain any desired orthogonal or parallel projection of an irregular figure or surface.

The author also called attention to the extreme simplicity of the methods of projecting extensive panoramic views from contoured maps by the employment of a linkage of two threads, the methods being fully illustrated by the drawings and models accompanying the paper.

2. 'The Nerve Impulse in its Relations to the Strength of the External Stimulus,' by C. W. Greene.

The papers presented and read by title were:

1. 'A New Form of Mirror for Reflecting Telescopes,' by Chas. Lane Poor.

The mirror is a portion of a paraboloid of revolution, cut at the extremity of the parameter. The advantages over the old form were indicated as follows: Utilization of the full aperture; the reflected beam being at right angles to the incident light; no second mirror necessary; possibility of constructing mirrors of great focal length; possibility of such mirrors of short focal length, replacing photographic doubts.

2. 'A New Form of Equatorial Mounting for Reflecting Telescopes.'

With mirror of the above form an equatorial mounting becomes very simple; the declination axis becomes the telescope tube, the mirror being mounted at extremity of such axis and capable of revolving about it in a manner similar to the large flat of the equatorial condé.

The image is formed at the intersection of the polar and declination axes and is always in the same position; the observer, therefore, remains at rest while viewing any and every part of the visible heavens. A single reflecting surface replaces three in the reflecting equatorial condé, and four in the forms mentioned by Wardsworth. No dome is required. Many other advantages were indicated and several modifications of the general form pointed out.

Note. — Experiments with mirrors of the

above form are now being carried out at the University.

CHAS. LANE POOR,  
Secretary.

BIOLOGICAL SOCIETY OF WASHINGTON, 274TH MEETING, SATURDAY, MARCH 27TH.

Mr. M. B. WAITE spoke on 'Factors Governing Pear Blight,' showing that the very conditions which were favorable to the growth of the tree were also favorable to the development of the disease, and that an important factor in combating the blight was the prevalence of a considerable degree of drouth.

Mr. Theo. Holm gave a historical review of our knowledge of 'The Grass Embryo and its Constituents.' He described the embryo as defined by Malpighi and authors of recent date, saying that there seemed to be good reason for adopting the explanation of its structure given by Malpighi more than 200 years ago. This involves the definition of both the 'scutellum' and the 'lobule' as independent leaves, while the 'pileole' thus becomes the first sheathing leaf or the second leaf proper after the cotyledon. A full account will soon appear in an article upon *Fuirena*, by the speaker, in the *American Journal of Science*.

Dr. E. A. De Schweinitz described 'Some Methods of Generating Formaldehyde and its use as a Disinfectant,' showing a specially devised form of lamp with a platinized wick by which large volumes of the gas could be readily generated.

F. A. LUCAS,  
Secretary.

#### NEW BOOKS.

*The Materials of Construction.* J. B. JOHNSON. New York, John Wiley & Sons. 1897. Pp. xv + 787. \$6.00.

*The Principles of Mathematical Chemistry.* GEO. HELM. Authorized translation from the German by J. LIVINGSTON R. MORGAN. New York, John Wiley & Sons. 1897. Pp. viii + 228. \$1.50.

*An Outline of the Theory of Solution.* J. LIVINGSTON R. MORGAN. New York.

*Plane and Solid Analytical Geometry.* FREDERICK H. BAILEY, FREDERICK S. WOODS. Boston and London, Ginn & Co. 1897. Pp. xii + 371.