

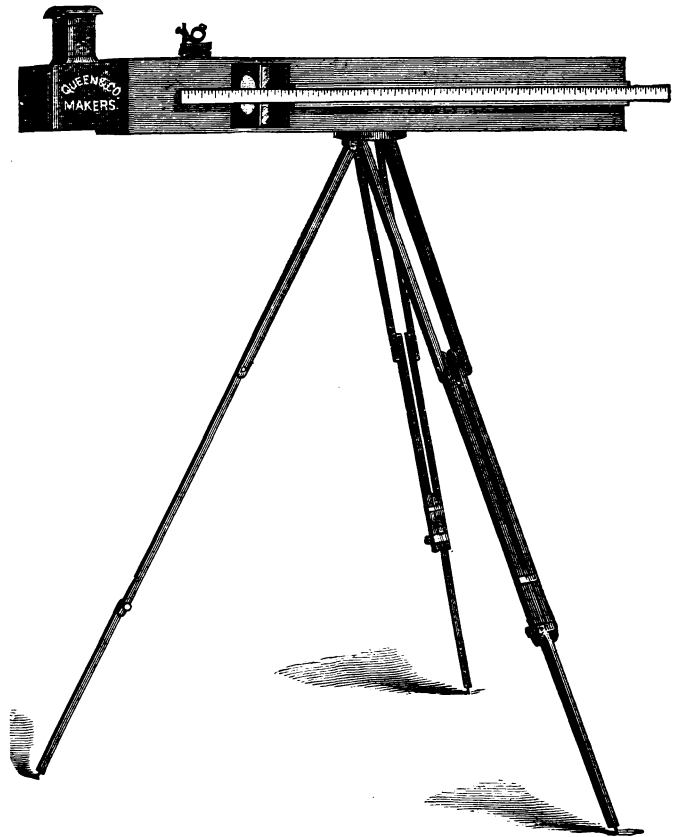
comptrollers and the courts in the settlement of claims against the government; Dr. Charles B. Elliott, writing of the legislatures and the courts, gives an interesting history of the origin and development of the power to declare a law unconstitutional; Professor R. M. Smith, in a timely paper on census methods, shows the scientific importance of the census, and suggests improvements in the methods of taking it; Professor Seligman contributes the first of a series of articles on "The Taxation of Corporations," containing an exhaustive review of all the legislation on the subject in the United States; and Horace White replies to Professor Patten's criticism of Wells's "Recent Economic Changes." There is the usual number of reviews, and a "Record of Political Events" for the six months ending May 1.

## INDUSTRIAL NOTES.

## New Portable Photometer.

To meet the demand created by the rapid adoption of the electric light for town and city lighting, and consequent necessity of making frequent tests for the purpose of conforming to certain standard conditions, Messrs. Queen & Co. have recently brought out a new form of Bunsen's photometer. This instrument is designed especially for street work, and will be found invaluable to municipal and government inspectors and experts having occasion to make candle-power tests of arc and incandescent lamps. The photometer is  $5\frac{1}{2}$  inches square in cross-sections, and 38 inches in length. The lantern, as shown in the cut, slips into one end of the box, where it is firmly held. A small adjustable holder carries the standard light, which may be either one or two standard candles. This adjustment regulates the height at which the flame stands, and also its distance from the screen. By making this latter distance exactly one foot, computation is greatly facilitated. Distances are measured by a graduated bar which slides in grooves along the side of the box. To allow for the difference in vision between the right and the left eye, the instrument is made reversible; i.e., it may be turned completely over, so that the right eye observes the side of the disk before observed by the left, and *vice versa*. When not in use, the lantern-chimney slips out, and can be placed inside the lantern itself, after which the entire lantern-box may be pushed inside the photometer, and small slides made to cover the two ends and the sight hole of the

instrument, making a solid box of it. A brass handle on one side allows the instrument to be carried as easily as a small hand-bag.



QUEEN'S NEW PHOTOMETER.

If desirable, a small incandescent lamp may be used as a standard instead of the candles. The range of the instrument is from about four candle-power up.



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## HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance, the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, *has ruined more stomachs than alcohol*. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.



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## CALENDAR OF SOCIETIES.

## Biological Society, Washington.

May 31.—Theo. Gill, Characteristics of the Halosauroids or Lyopomes; C. Hart Merriam, Exhibition of Specimens of New Species of North American Mammals; J. N. Rose, Coulterella, a New Genus of Compositæ; Joseph F. James, Organisms in the St. Peter's Sandstone.

## Engineers' Club, St. Louis.

May 21.—George A. Brown, The Function of the Government in a Plan for General Irrigation. In the discussion, Professor Nipher said that experiments extending over a long period of years had demonstrated that the apparent increase in rainfall in forests was due to the fact that the rain caught in the gauges was not affected by wind-currents. Improved forms of rain-gauges had shown that there was no actual difference between the amount of rain falling in forests and in open places.

## Royal Meteorological Society, London.

May 21.—W. B. Tripp, Rainfall of the Globe. This was a comparative chronological account of some of the principal rainfall records. The earliest record is that of Paris, which commenced in 1689. The English records began in 1726. The rainfall observations in the southern hemisphere do not extend over a very long period. At Adelaide they were commenced in 1839, but they do not go back farther than 1866 for New Zealand. The greatest fall in any particular year at the stations given by the author was 160.9 inches at St. Bernard, in 1839; and the least, 3 inches, at San Diego, in California, in 1863. By combining the stations in the northern and southern hemispheres, the author finds that in recent times the years with the highest average rainfall were 1878, 1879, and 1883, and the years with the lowest average were 1854 and 1861. W. H. Dines, Mutual Influence of Two Pressure Plates upon Each Other, and Comparison of the Pressures upon Small and Large Plates; On the Variations of Pressure caused by the Wind blowing across the Mouth of a Tube. In these two papers the author gives the results of some experiments on wind-pressure which he has made mostly on a whirling-machine at Hersham, Surrey. From these experiments it seems probable that a decrease of pressure per square foot with an increase of size of plate may be taken as a general rule.

## A TEMPORARY BINDER

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WANTED.—At the Bryant Summer School, Roslyn, L. I., a Professor to teach the botany and zoology of the sea, marine life, etc., etc. July 8–Sept. 8. Also, a six months' term beginning now. Other papers please copy. E. HINDS, A.M., Principal.

ARCHITECTURAL DRAUGHTSMAN, of four years' practical experience, wants employment during the four months' summer vacation of the Mass. Institute of Technology. Best of references, including former employer. Address I. M. BARROWS, 50 Union Park, Boston, Mass.

AN OHIO STATE UNIVERSITY graduate desires a position for next year as laboratory assistant or instructor in chemistry and physics. Three years' special preparation for such work. Two years' experience in teaching. References as to character and scholarship. Address C. S. ARNOLD, O. S. U., Columbus, O.

WANTED.—At the BRYANT SUMMER SCHOOL, Roslyn, L. I., THREE professors to teach Sciences, Languages, Mathematics, etc. July 8–Sept. 8. Also, a six months' term beginning now. Other papers please copy. E. HINDS, A.M., Principal.

A GRADUATE of Princeton, for several years a university student and Fellow in Biology, desires a position either to teach biology or as assistant in a biological laboratory. Would prefer the latter and be satisfied with a moderate salary if the position afforded time for the prosecution of original research. Address, O. S., BOX 86, Princeton, N. J.

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AN EXPERIENCED Technical Chemist will be open to engagement this summer. Highest references. Address DIRECTOR, Office of SCIENCE.

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