

be subjugated and controlled for human welfare through a continued and cumulative conquest limited only by capacity for yielding necessities of life. While other limiting factors may arise as mentality extends and intensifies, that most evident to-day in this and several other countries is the water supply; yet even this barrier may not prove insuperable by advancing invention so long as the constituents of water abound in other combinations in the external earth-crust. Whatever the uncertainties, any definite estimate of future population made in the light of limitations arising in current knowledge of resources is more likely to be found too small than too large as knowledge and command over nature advance with the progressive development of mankind.

W J MCGEE

THE SILLIMAN LECTURES

THE Silliman lectures for 1911 will, as already announced, be given at Yale University by Professor Max Verworn, of the University of Bonn. They will be given in Lampson Hall at five o'clock on successive days beginning on Monday, October 9. The subjects are as follows:

- I. Historical Observations on the Doctrine of Irritability.
- II. The Meaning of Stimuli.
- III. The Special Characteristics of Stimuli.
- IV. The General Effects of Stimulation.
- V. The Analysis of Excitation.
- VI. The Conductivity of Excitation.
- VII. Refractory Period and Fatigue.
- VIII. The Interference of Excitation.
- IX. The Interference of Excitation.
(Continued.)
- X. The Processes of Depression.

The preceding lectures on the Silliman foundation have been:

1903. Professor Thomson, Cambridge University: Electricity and Matter.
1904. Professor Sherrington, University of Liverpool: Integrative Action of the Nervous System.
1905. Professor Rutherford, McGill University: Radio-active Transformations.
1906. Professor Nernst, University of Berlin:

- Applications of Thermodynamics to Chemistry.
1907. Professor Bateson, Cambridge University: The Problems of Genetics.
1908. Professor Penck, University of Berlin: The Problems of Glacial Geology.
1909. Professor Campbell, Lick Observatory, University of California: Stellar Motions.
1910. Professor Arrhenius, University of Stockholm: The Theories of Solutions.

SCIENTIFIC NOTES AND NEWS

PROFESSOR W. S. EICHELBERGER, director of the Nautical Almanac, will represent the United States at a conference of the directors of the National Nautical Almanacs to be held at Paris from October 23 to 28.

At Harvard University Professors W. M. Davis (geology), P. H. Hanus (education), E. V. Huntington (mathematics) and E. B. Holt (psychology) have leave of absence from the university for the academic year 1911-12; Professors Theobald Smith (comparative pathology), George Santayana (philosophy), R. B. Perry (philosophy) and D. W. Johnson (physiography), for the second half-year.

THE Hanbury gold medal of the British Pharmaceutical Society has been awarded to M. Eugene Léger, of the Hôpital St. Louis, Paris.

DR. G. A. HANSEN, president of the permanent international committee on leprosy, was one of the founders of the *Medicinsk Revue* in Norway in 1884. On the occasion of his seventieth birthday recently, as we learn from the *Journal* of the American Medical Association, the *Revue* issued a special *Festschrift* number in his honor with fifteen articles on various topics, especially leprosy and pellagra, all by Norwegian writers.

PROFESSOR CHARLES L. EDWARDS, of the University of Southern California, has been placed in charge of the abalone investigations instituted by the Fish and Game Commission of the state of California.

WE learn from *Nature* that Mr. J. J. Nock has been appointed by the British secretary of