told the work at Princeton as illustrated by the contribution under review, marks an important advance in this department of astronomy. JOEL STEBBINS

*An Index to the Museum Boltenianum.* By WILLIAM HEALEY DALL. Smithsonian Publication No. 2360. 1915. 8vo. Pp. 64.

Rarely has the credit of a great life's work approached more perilously near oblivion and still be enrescued and enshrined in proper setting, than did that of the conchologist J. F. Bolten, of Hamburg. His life was practically his collection, systematically arranged, large, beautiful. In the arrangement of his collection he followed his own system, far in advance of that proposed previously by Linnæus. An outline manuscript was prepared of this system, and some illustrations were prepared by an artist-friend, Schulze by name, but death deprived the work of the artist's aid, and Bolten's infirmities prevented the prosecution of the undertaking. The outline of the system published by the family in 1798 after Bolten's death would only have been of value to the world as showing the size of the Bolten collection had not a second friend, Roeding by name, seen to it that specific names were accompanied by references to Gmelin's "Systema" and to the figures in the Conchylien Cabinet and elsewhere. In 1819 another edition serving as a sale catalogue was published; but both editions have long ago become very scarce and well-nigh forgotten. Again, a third friend, Dr. Dall, in a distant land, united a private donation with a small grant from the American Association for the Advancement of Science and had the same turned over to Sherborn and Sykes of the British Museum (Nat. History) who brought out a phototypic copy of the edition of 1798 (1906). Now, we have before us finally an elaborate and convenient index to this edition prepared by the same thoughtful friend and published as noted above by the Smithsonian Institution. It is naturally to be regretted that funds did not permit of the publication of the index with the volume, but nevertheless there is real satisfaction in feeling that the work is now in available form and the labors of Bolten shall not be forgotten. G. D. HARRIS

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## *THE PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES (NUMBER 6)*

THE sixth number of Volume 1 of the *Proceedings of the National Academy of Sciences* contains the following articles:

1. *Confirmatory Experiments on the Value of the Solar Constant of Radiation:* C. G. ABBOT, F. E. FOWLE and L. B. ALDRICH, Smithsonian Institution, Washington, D. C.

Observations at Mt. Wilson from sunrise until ten o'clock and records obtained by a recording pyrheliometer attached to sounding balloons rising to the altitude of 24 km. confirm the value 1.93 calories per square centimeter per minute previously obtained for the radiant energy received by the earth from the sun.

2. *Variation of Flower Size in Nicotiana:* T. H. GOODSPEED and R. E. CLAUSEN, Department of Botany, University of California.

During five years of study of the inheritance of flower-size in *Nicotiana,* it has been found that the flower-size is not so constant as it has been assumed to be, but is affected by a number of conditions, some of which may not effect the length and the spread of the flower in the same manner.

3. *Retention in the Circulation of Dextrose in Normal and Depancreatized Animals, and the Effect of an Intravenous Injection of an Emulsion of Pancreas upon this Retention:* I. S. KLEINER and S. J. MELTZER, Department of Physiology and Pharmacology, Rockefeller Institute for Medical Research.

In normal animals the circulation possesses the ability to get rid readily of a surplus of dextrose injected intravenously. This ability is impaired in the absence of the pancreas, but can be temporarily restored by intravenous injections of pancreas emulsion. Such injections, moreover, are capable of reducing the hyperglycæmia due only to depancreatization.