## SCIENCE

FRIDAY, FEBRUARY 20, 1920

CONTENTS	
The Functions and Ideals of a National Geo- logical Survey: F. L. RANSOME	173
George Macloskie: Professor W. M. RANKIN.	180
Scientific Events:—	
The California Institute of Technology; The Annual Meeting of the Board of Trustees of the American Museum of Natural His- tory; The New York Meeting of the Ameri- can Institute of Mining and Metallurgical Engineers; Resolutions on the Death of Sir	
William Osler	181
Scientific Notes and News	185
University and Educational News	187
Discussion and Correspondence:— Blood-inhabiting Protozoa for Class Use: PROFESSOR R. W. HEGNER. Horizontal Rain- bows: PROFESSOR CHANCEY JUDAY. Chem- istry applied to Commerce: WILLIAMS HAYNES	187
Scientific Books:—	
Schenck's Physical Chemistry of the Metals: H. F	190
Special Articles:	
The Developmental Origin of the Notochord: PROFESSOR B. F. KINGSBURY	190
The Conference at Cleveland on the History of Science: Professor Lynn Thorndike	193
The American Association for the Advance- ment of Science:—	
Financial Report of the Permanent Secre- tary and of the Treasurer	194

## THE FUNCTIONS AND IDEALS OF A NATIONAL GEOLOGICAL SURVEY<sup>1</sup>

Introduction.—During the period of unrest and uncertainty through which we are still painfully groping, the many distracting calls upon my time and thoughts have made performance of the duty to prepare a presidential address particularly difficult. In view of these circumstances I may perhaps hope for some indulgence on your part if my effort shows some lack of thoroughness in its preparation and falls somewhat short of the high standard set by some of my distinguished predecessors. The subject of a presidential address to the academy should, I think, be of wider interest and more general character than would ordinarily be an account of work in the speaker's particular branch of science, and this condition I have attempted to fulfill. Although what follows will deal especially with national geological surveys much of it will apply in principle to any scientific bureau conducted as a government organization.

Reasons for the Existence of a National Geological Survey.-In the beginning it may be well to review briefly the reasons for the existence of a national geological survey. Why should the government undertake work in geology while investigations in other sciences are in general left to private initiation and enterprise? The reasons that may be adduced will differ with the point of view. The geologist will suggest that whereas some sciences, such as chemistry, physics or astronomy may be pursued with success with stationary and permanent equipment at any one of a number of localities, geology is regional in its scope and is primarily a field science as contrasted with a laboratory science. Geology. it is true, must avail itself of laboratory re-

<sup>1</sup> Address delivered as retiring president of the Washington Academy of Sciences on January 13, 1920.

MSS. intended for publication and books, etc., intended for review should be sent to The Editor of Science, Garrison-on-Hudson, N. Y.