that 'that little twinkling star,' as he expressed himself, should be able to send its light to us."

Noteworthy is Professor Stokes's opinion (p. 83) of the astonishing conclusions of Young and Forbes as to the varying velocities of propagation of different wave-lengths in vacuum; for his doubts as to their validity seem founded only upon the fact that the conclusions depend upon the judgment of the eye of a single observer.

We shall await with interest the publication of the next year's course, which is to be devoted to researches in which light has been used as a means of investigation. The third year's course will "be assigned to light considered in relation to its beneficial effects."

NOURSE'S AMERICAN EXPLORATION IN THE ICE-ZONES.

American exploration in the ice-zones (etc.), prepared chiefly from official sources. By Prof. J. E. NOURSE, U.S.N. Boston, *Lothrop*, 1884. 3 + 578 p., illustr., maps. 8°.

THE work of Professor Nourse does not profess to be, and is not in any sense, a study of the results of arctic exploration performed by Americans, or of the relation of American explorations to explorations made by the people of other nations. It is simply a collection of narratives of the different expeditions, — gotten up, like the stock compilations, by hack-writers, — which are published on various subjects from time to time. It is a book undeserving of high praise, either in its contents or its make-up. The only thing which redeems it from perfect mediocrity is the fact that it contains some data in relation to the North Pacific exploring expedition, under Rodgers, the report of which still remains unpublished, and a few facts from Hooper's report of his voyage in the Corwin in 1881, the original of which has not been made public.

The record is complete only for the naval and military expeditions. Those of the telegraph explorers, 1865–68, are not even mentioned, though much of their work was in really arctic regions; and the indirect results of their explorations have added one-seventh of its area to the present United States, and have contributed at least one hundred titles to geographical bibliography. The travels of Kennicott and others in the Hudson-Bay region, of Nelson in northern Alaska, the work of the coast-survey in and north of Bering Strait in 1880, are left to other chroniclers. We presume this may be accounted for by the fact that the investigations referred to, and their value, are familiar only to students, specialists, and geographers, and not easy of access to the mere compiler.

From a literary point of view, the work is open to severe criticism. The thread of the narrative is frequently broken for the most trivial digressions, which are pursued at great length. The misprints are numerous, and generally of that objectionable kind which confuses the sense, without being obvious to the ordinary reader. Trifling matters are detailed at length, while more important ones are omitted.

In spite of all this, the book will be attractive to youthful readers who are not critics, and enjoy unfamiliar details, and to whom the really weightier matters are not important. It is fully illustrated by cuts drawn from Rink, Bessels, Hall, Hayes, and various government publications, and is accompanied by the worst map of the circumpolar regions which we have ever encountered.

INTELLIGENCE FROM AMERICAN SCIENTIFIC STATIONS.

GOVERNMENT ORGANIZATIONS.

U. S. geological survey.

Paleontology. — Mr. C. D. Walcott has prepared the manuscript for a report on the St. John fauna of New Brunswick, contained in the Hartt collection. It is ready for publication as a bulletin of the survey, and only awaits the completion of the drawings illustrating it to go to press.

During April the collection of Devonian fossils from the Hamilton group of New York was transferred to the U. S. national museum, and recorded. The collection was made about Moravia, N.Y., by Mr. Cooper Curtice, during a portion of the field season of 1883. It also included a quantity of specimens collected by Mr. Curtice prior to his becoming a member of the geological survey. The collection consisted of fifteen hundred and seventy-seven specimens, containing sixty-two genera and a hundred and eighteen species.

Dr. C. A. White, during May, was occupied mainly with the examination of fossils forwarded from California by Mr. G. F. Becker, and in preparatory study for his proposed work in the mesozoic and cenozoic areas of California during the coming season. Dr. White started for California the 2d of June, and will probably take the field first in the Clear Lake region, and make a section towards the coast.