SCIENCE:

A WEEKLY RECORD OF SCIENTIFIC PROGRESS.

JOHN MICHELS, Editor.

PUBLISHED AT

229 BROADWAY, NEW YORK.

P. O. BOX 3838.

SATURDAY, APRIL 16, 1881.

We present in another column a communication from Professor Alexander Winchell, of the University of Michigan, who, in response to a request from ourselves, has presented a very clear statement of his views relating to some conditions of primitive matter. This subject was introduced in "SCIENCE" by Mr. Larkin (March 26), and followed by Mr. Morris in our last issue.

Much difference of opinion exists on this subject, which is one of the highest interest, and we trust that the open discussion we have permitted may elicit some truth, and lead to a removal of many of the difficulties which underlie this question. Without anticipating our opinion on the merits of the respective arguments which have been adduced or the conclusions to which they lead, we may state that both Mr. Larkin and Mr. Morris, in speaking of gravity, magnetism, heat, light, electricity, motion, etc., etc., appear to make statements which do not accord with the standard authorities on these subjects.

That such difference of opinion should exist on what may be considered fundamental points, should cause no surprise, when even the nomenclature of the physical sciences is in a state of confusion. On this subject we refer our readers to an able article by Professor A. E. Dolbear, published in "SCIENCE" last November (Vol. 1, page 238); this paper demands the careful study of all who would take part in this discussion, and affords a basis on which it may be conducted with profitable results.

We make no apology for introducing this subject to our readers, especially as it has been recently mentioned in popular and scientific books, in connection with philosophical, ethical and theological questions. The objective point of Mr. Larkin's arguments appears to be directed against the Nebular hypothesis of Laplace.

Professor H. Helmholtz, whose lecture on this subject has been recently published by Messrs. Appleton & Co., makes a stout defence of this hypothesis. He asserts that "science is not only entitled, but is beholden, to make such an investigation. For her it is a definite and important question, as it involves the existence of limits to the validity of the laws of nature, which rule all that now surrounds us; the question whether they have always held in the past, and whether they will always hold in the future; or whether, on the supposition of an everlasting uniformity of natural laws, our conclusions from present circumstances as to the past, and as to the future imperatively lead us to an impossible state of things; that is, to the necessity of an infraction of natural laws, of a beginning that could not have been due to processes known to us."

As Mr. Helmholtz observes, to commence such an investigation as to the possible or probable primeval history of our present world considered as a question of science, is no idle speculation, for it is a question as to the limits of its methods, and as to the extent to which existing laws are valid.

We have received several interesting letters on this subject which will be found in our next issue.

THE SEA-SIDE LABORATORY.

The liberality and co-operation of the Woman's Education Association enables the Boston Society of Natural History to announce that a Sea-side Laboratory, under the direction of the Curator, and capable of accommodating a limited number of students, will be open at Annisquam, Mass., from June 5th to September 15th.

Annisquam is situated on an inlet of Ipswich Bay, on the north side of Cape Ann, and is about three and a half miles by coach from the Eastern Railroad Company's station in Gloucester.

The purpose of this Laboratory is to afford opportunities for the study and observation of the development, anatomy and habits of common types of marine animals under suitable direction and advice. There will therefore be no attempt, during the coming summer, to give any stated course of instruction or lectures.

It is believed that such a Laboratory will meet the wants of a number of students, teachers and others *who have already made a beginning in the study of Natural History*. Those who have had some limited experience in a laboratory, or who have attended the practical lessons given by the Teachers' School of Science of the Boston Society of Natural History, are sufficiently qualified to make use of this opportunity.

The work in the Laboratory will be under the immediate care of Mr. B. H. Van Vleck, Assistant in the Museum and Laboratory of the Boston Society of Natural History, a thoroughly competent instructor, and one who has also had long experience in collecting and observing at the sea-side.

Those who would avail themselves of this excellent opportunity to study living objects at the sea-shore should make application to Mr. Alpheus Hyatt, Curator of the Boston Society of Natural History.