

SCIENCE :

A WEEKLY RECORD OF SCIENTIFIC PROGRESS.

JOHN MICHELS, Editor.

TERMS:		
PER YEAR,	- - - - -	FOUR DOLLARS
6 MONTHS,	- - - - -	TWO " "
3 " "	- - - - -	ONE " "
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TO OUR ENGLISH READERS.

We have received from Messrs. Deacon & Co., of 150 Leadenhall street, London, England, a standing order for a large supply of "SCIENCE," which will be forwarded weekly. We shall be obliged if our English readers will make this fact known to their friends.

THE death of President James A. Garfield is regretted by the nation as a great national loss; but all friends of progress and those who desire to elevate the indifferent and ignorant to a higher grade of civilization, will mourn his sudden death as a calamity; for he was a living example of the wonderful power of education to raise a man from a humble position in society to a post of high honor and usefulness, developing powers which not only opened up a bright and brilliant career, but brought a peaceful and hopeful serenity to his mind which was evident to all who enjoyed his society.

A NEW COMET.

Mr. E. E. Barnard, of Nashville, Tennessee, announced to the Smithsonian Institute, on the 21st instant, the discovery of a comet by him on the 20th, at two o'clock A. M., Washington mean time, in seven hours forty-six minutes right ascension, and thirteen degrees twenty-eight minutes north declension, with a daily motion of three degrees northeast.

On the 23d instant Professor Lewis Swift, of Rochester, made the following announcement in regard to this comet:

The position of Barnard's comet, as telegraphed from Washington, is so widely erroneous that nobody would be able to find it. Instead of being in cancer and having been discovered at two o'clock in the morning, it was near zeta virginis, low down in the Western horizon, and can be seen but a few minutes. It was discovered on the evening of the 19th, and at 7h. 46m., Washington mean time, of the 20th, was in right ascension 13h. 28m. 2s., declination north 3 deg. 47 min., with a daily motion of 3 degrees northeast.

In consequence of smoke I have not been able to find it.

We trust in our next issue to offer some explanation of these contradictory statements.

ONE of the most interesting and valuable reports that has been issued by the Board of Education at Washington, is that recently printed, which describes the opportunities for instruction in Chemistry and Physics which at present exists in the United States, together with statistical tables relating to this subject.*

The Department was fortunate in securing the services of Professor F. W. Clarke, Professor of Chemistry and Physics in the University of Cincinnati, to draw up this report, based on the mass of facts and figures bearing on this matter, which had been collected in reply to circulars issued by the Commissioner of Education towards the close of the year 1878. Professor Clarke appears to possess both executive and literary ability of a high order, and being himself a chemist and a teacher of science, was clearly in a position to do justice to the excellent intentions of Commissioner Eaton. We congratulate Professor Clarke on his success in compiling the technical part of his report, and we propose, on this occasion, to refer to some of his critical remarks and suggestions, which, in scientific circles, will be considered the most valuable result of this investigation.

Before discussing the condition of scientific instruction in public schools, it may be well to consider first, at what age such instruction shall be commenced, and whether it should be considered as a part of primary education, or be reserved for high schools and universities, where special courses of training in the various branches can be advantageously advanced.

Professor Clarke claims that oral instruction in chemistry and physics can be made intelligible to children of ten years of age. He admits, however, that there is a tendency towards over-cramming the lower schools with a too great variety of subjects, which lead to results which are undesirable. He therefore suggests a compromise, and proposes, that in primary schools a taste for science should be cultivated among children "through the medium of the reading books, which might properly contain some short extracts relating to natural science." This plan Professor Clarke considers would be beneficial, and could not be injurious.

We can find no objection to such a course, provided a suitable reading book be written for the purpose, but before any discussion can be made as to the propriety of teaching the sciences in any form in the primary schools, a more thorough reform in the

*Circulars of Information of the Bureau of Education No. 6. 1881.

A report on the teaching of Chemistry and Physics in the United States, by Frank Wigglesworth Clarke, S. B., Professor of Chemistry and Physics in the University of Cincinnati. Washington, 1881.