ical locality is that the terrane should be exhibited there in its entirety or maximum development;' and that the territory about Newark, N. J., does not meet these requirements for the Newark system.

Without dissenting from the wisdom of the rule proposed, although a large number of exceptions could be found to it in the best geological memoirs, I wish to state from my own knowledge that the region about Newark may be taken as typical of the terrane named after that city. The characteristic reddish-brown standstones and shales are there well exposed, and in the neighboring Newark mountains the associated trap rock occurs in sheets of great thickness. This statement is sustained by Prof. Hitchcock's own words, a little farther on in the paper cited, where he says, "the New Jersey terrane possesses the distinguishing features of the Trias quite as well as the one in New England."

That *Passaic* would have been a better name, as Prof. Hitchcock suggests, is perhaps true, but the one before us was definitely selected and has priority.

Second. It is stated by Prof. Hitchcock that the name 'Connecticut or Connecticut River sandstone has priority over Newark,' and was used by several geologists before Redfield's proposal in 1856, 'though none of them had proposed it as a geological term.' The admitted fact that no one had used the name referred to as a geological term, relieves me of the necessity of showing that Redfield's name has priority.

In the writings of the older geologists among whom Prof. Edward Hitchcock will always take the first rank as an investigator of the sandstones of the Connecticut valley, the terms 'Connecticut sandstone,' or 'Connecticut River sandstone,' were used in the same sense as the coördinate term I have just employed, *i. e.*, as a geographical designation; just as they might have referred to the granite of Massachusetts without any intention of proposing a group name. The fact that the older geologists, and among them Prof. Edward Hitchcock, spoke of the Newark rocks of New England under definite group names, implying correlation, is sufficient evidence that they did not recognize the value of an independent name.

Third. It is stated that Prof. J. D. Dana adopted the name proposed by Redfield, in his lectures, but did not use it in his subsequent writings. Prof. Dana's reasons for this course have never been published, and so far as it is a precedent—happily precedents have less weight in geology than in some other professions—it indicates that we should first use the name Newark and then abandon it for other names implying indefinite correlation with distant terranes.

Fourth and *Fifth.* While it is admitted that the terrane under discussion is quite as well represented in New Jersey as in the Connecticut valley, it is claimed that the latter having been studied first, should have furnished the group name. I fully agree with Prof. Hitchcock in this, and could add several other group names which to my taste might be improved, but the author of a geological name, like the palæontologist who describes a new fossil, is entitled to priority. To attempt to introduce a new name for a group of rocks already sufficiently well designated, would only bring confusion, similar to that produced by the great variety of names implying correlation that have already been used for the Newark system." Israel C. Russell.

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DEATH OF GEORGE N. LAWRENCE.

The veteran ornithologist, George N. Lawrence, died at his home in New York City, Jan. 17, 1895, at the age of 89 years. He was born in New York, Oct. 20, 1806. His wife, to whom he had been married more than sixty years, died only five days earlier.

Mr. Lawrence was one of the most careful and prolific of American ornithologists. The list of his published writings * contains 121 titles, the earliest of which appeared in 1844, the latest in 1891. The period of his productive activity thus covered nearly half a century. He was an active contemporary of all American ornithologists from Audubon and Nuttall to the younger writers of the present day. 'Baird, Cassin and Lawrence' are classic names in ornithology —names associated in joint authorship in Baird's great work on the birds of North America, published in 1858. For nearly fifty years Baird and Lawrence, then the foremost authorities on American birds, were warm personal friends, and on more than one occasion accomplished, by hearty coöperation, what neither could have done alone. It should not be forgotten that their arduous labors paved the way for the refinement of detail that characterizes the bird work of to-day.

Baird busied himself chiefly with the birds of the United States, Lawrence chiefly with those of tropical America. Lawrence described more than 300 new species from the West Indies, Mexico, Central and South America. One genus and twenty species were named in his honor—tokens of respect and esteem—by American and European naturalists.

Baird and Lawrence lived under widely different conditions. Baird led an active official life, burdened with the cares and responsibilities of three great institutions, two of which, the National Museum and Fish Commission, were his own creation; he was constantly overworked and died prematurely at the age of sixty-five years. Lawrence led a quiet, retiring life, far away from the public eye, and died at the ripe age of fourscore years and nine. Still, the two had many traits in common; both were plain and unassuming, kind and thoughtful in their family relations, and ever ready to extend a helping hand to those, however young, whose tastes led them to the study of birds. In looking back over the twenty-five years that have passed since I first enjoyed their acquaintance, my mind constantly recurs to the kindly words of encouragement and advice that shaped my early course as a naturalist, and the friendships that followed will always live among my most cherished memories.

C. HART MERRIAM.

* The Published Writings of George Newbold Lawrence, by L. S. Foster. Bull. U. S. National Museum, No. 40. 1892.

SCIENTIFIC LITERATURE.

A Treatise on Hydrostatics. By ALFRED GEORGE GREENHILL, Professor of Mathematics in the Artillery College, Woolwich. Macmillan & Co., London and New York. 16mo, pp. viii+536.

The science of hydrostatics, originating with Archimedes, is now more than twenty centuries old. It is, in many respects, one of the most perfect and satisfactory of the sciences. This fact, however, arises from the simplicity of the phenomena with which hydrostatics has to deal rather than from anything like continuity of progress during its lengthy history. Indeed, as regards purely hydrostatical principles, we are not very greatly in advance of Archimedes. Our superiority over him is due, first, to an immensely enlarged capacity, through the developments of mathematics, for the application of those principles; and, secondly, to the exploration of the much larger and more interesting domain of hydrodynamics, of which, in fact, hydrostatics is only a special case.

The work of Professor Greenhill treats hydrostatics from the modern point of view. He does not hesitate to cross the border for an excursion into hydrokinetics whenever desirable or essential, although some might