hope ever to change into a lizard. One of the greatest steps in evolution was the origin of life, but it is unreasonable to suppose that the concurrence of favorable conditions necessary for this step could occur only once in the history of the earth. The impossibility of abiogenesis *now* is, therefore, no argument against an abiogenesis once in the early history of the earth.

Again: the author, while he admits that evolution is not necessarily destructive of the idea of a guiding intelligence in nature, while he insists on the necessity of supernatural interference only at the three points mentioned above, thus implying that evolution may possibly take charge of the process in the intervening time, yet plainly inclines strongly to the supernatural origin of species. Along with many other deeply religious minds, he seems to shrink from the cordial recognition of the law of evolution as if it dispensed with the necessity of a God in nature. But surely this is no more true of evolution than of any other law of nature. If the law of gravitation did not destroy our belief in a divine sustainer of the cosmos, why should the law of evolution destroy our belief in a divine Creator? If the law of gravitation be nought else than the divine method of sustentation, then is the law of evolution naught else than the divine process of creation.

One thing more: the present epoch is supposed by the author to differ from all previous ones in the fact of *rest from creative work*. We cannot allow that this is the decision of science. The very possibility of a science of geology is conditioned on the continuance of geological changes, i.e., of creative work, under our eyes.

In conclusion, we must say, that, given the point of view, the frame of mind of the author, — a frame of mind still the most common among religious men, — the book is undoubtedly deserving of much praise as the very best of its kind. But we feel sure that the frame of mind of the religious world is on the eve of change, and, with the change, the '*raison d'être*' of the book will no longer exist.

TRYON'S CONCHOLOGY.

Structural and systematic conchology (etc.). By GEORGE W. TRYON, jun. Vol. iii. Philadelphia, *The author*, 1884. 453 p., 49 pl. 8°.

THE final volume of Mr. Tryon's work has appeared, including over four hundred and fifty pages of text and about fifty plates. It treats of the pulmonate gastropods, the Scaphopoda or Dentalia, the lamellibranchs, and the brachiopods, and contains an appendix with numerous additions and rectifications and an index of genera comprising nearly sixty-five hundred different names. We have previously referred to what we consider the defects of the plan and of some of the details of the earlier volumes, — defects which this one shares to a certain extent. Nevertheless, as it is in large part a treatise on groups which the author has made the subject of special study, he has made it by far the best of the three, — a fact which it gives us pleasure to recognize. In spite of the criticism which the work as a whole has seemed to us to call for, it is only fair to the author to point out the immense labor required to bring together the material condensed in the two descriptive volumes, and the service which this condensation, in spite of certain defects, will render to workers in conchology and paleontology. The devotion with which the author has applied himself to the study of mollusks for years, has not been fruitless; and here and there in the text most students will find scattered opinions and remarks which will recommend themselves as sound and judicious. While the character of the illustrations cannot be said to be satisfactory, yet they are in most cases sufficiently recognizable to be of service to him who knows what he seeks. If we fail to find in the systematic arrangement that grasp of the subject which might be wished for, and that exposition of recently developed truths one naturally seeks in the newest book, yet we recognize the benefit the author has conferred on specialists, at the cost of an enormous amount of drudgery, by bringing into reasonable orderliness, from innumerable scattered sources, the names and descriptions of thousands of generic forms. For this the work will be welcome in many libraries.

STEAM-ENGINE INDICATORS.

The Tabor steam-engine indicator. By GEORGE H. BARRUS, S.B. New York, 1884. 75 p. 24°.

THE preface of this little handbook states that it was prepared at the solicitation of the Ashcroft manufacturing company, makers of the Tabor indicator, as a book of reference and instruction to purchasers and others.

The subject of principal interest in the book is, of course, that of the construction and performance of the Tabor indicator, especially as compared with other indicators; although there is, besides this, a variety of useful matter, tables, etc.