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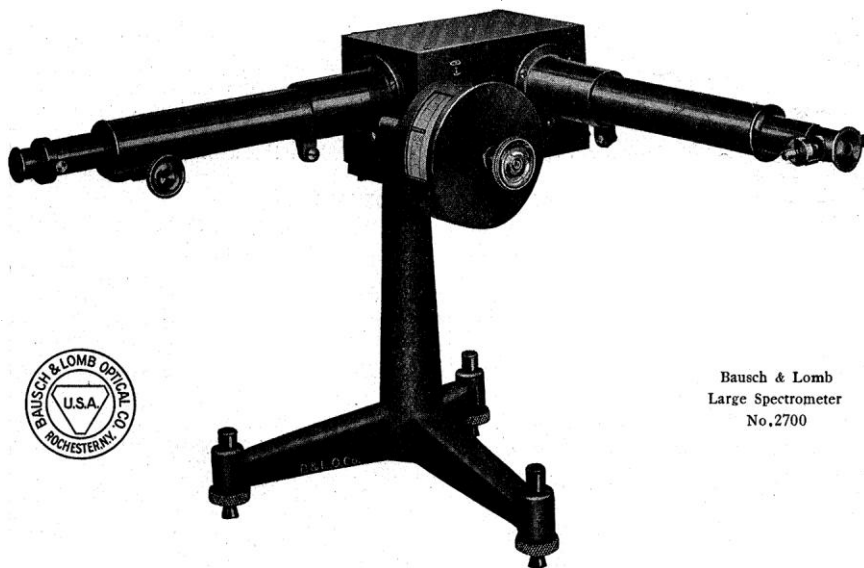
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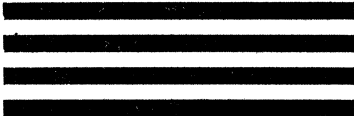
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VOL. LXIV

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OUR WORLD IN THE MAKING

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AN example of innate conservatism, in science instead of religion, is found in the tenacity with which even scientific men are holding to a discredited hypothesis of world origin. It is now one quarter of a century since Professor T. C. Chamberlin, with the cooperation of Professor F. R. Moulton, proved that the nebular or Laplacian hypothesis for the evolution of the solar system fails at all points where it is tested by modern physical science. With the passing of the old philosophy, for the nebular cosmogonic guess was more philosophy than science, there should be abandoned the involved conception of an originally molten globe. This conception has always been a hindrance to geologic science, because most of the difficult problems in geology make the final appeal to the manner of formation, or to the initial condition, of the globe.

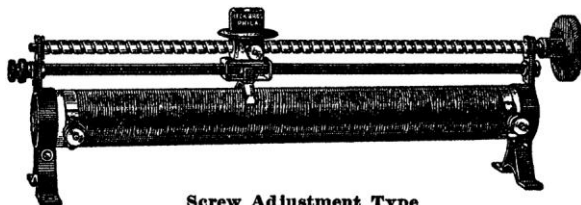
Instead of an initial and incandescent globe of full size the Planetesimal theory, by Professor Chamberlin, builds the earth by the slow infall and accretion of cold particles (planetesimals), with the surface of the growing globe always solid and comparatively cold. This new conception gives a better basis and more satisfactory explanation for the elusive puzzles in earth science.

This paper is not in discussion of the origin of the solar system, but it is a brief comparison of some geologic problems analyzed under the two views of the primitive earth. The cosmic process in evolution of sun and planets is a study in mechanics, physics and mathematics, and lies in the domain of astrophysics. But the formation of the globe, from its primitive condition, should be revealed in the constitution of the globe itself. The earth should have inscribed its own autobiography, and the study of such record is the province of geology. In former time the young, modest and persecuted science accepted the cosmic philosophy of Swedenborg and Kant, and the deductions by Laplace from imagined conditions, along with the involved idea of a primitive, superheated and liquid globe. The progress of geology, especially on its theoretic side, has been seriously handicapped by its deference to a mistaken geogony.

With the purpose of presenting the subject to the general reader in a single article, the facts, arguments and implications are necessarily given with brevity and incompleteness and as untechnical as possible. It is expected that experts will find occasion for criticism. Brevity is quite compulsory for the nebular column, because the conditions, surficial and internal,

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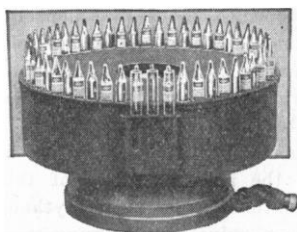
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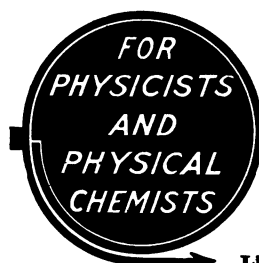
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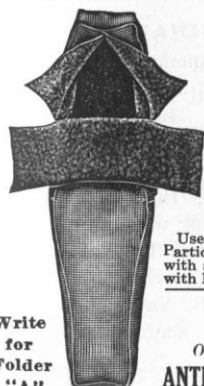
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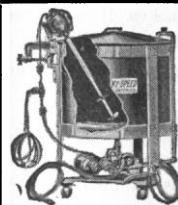
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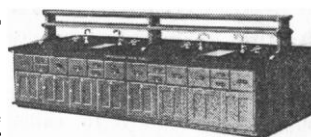


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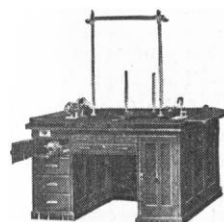
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