SCIENCE

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MSS. intended for publication and books, etc., intended for review should be sent to Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

SOME ASPECTS OF PROGRESS IN MODERN ZOOLOGY[1]

IT is our privilege to live in a time of almost unexampled progress in natural science, a time distinguished alike by discoveries of the first magnitude and by far-reaching changes in method and in point of view. The advances of recent years have revolutionized our conceptions of the structure of matter and have seriously raised the question of the transmutation of the chemical elements. They have continually extended the proofs of organic evolution but have at the same time opened wide the door to a reexamination of its conditions, its causes, and its essential nature. Such has been the swiftness of these advances that some effort is still required to realize what remarkable new horizons of discovery they have brought into view. A few years ago the possibility of investigating by direct experiment the internal structure of atoms. or the topographical grouping of hereditary units in the germ-cells, would have seemed a wild dream. To-day these questions stand among the substantial realities of scientific inquiry. And lest we should lose our heads amid advances so sweeping, the principles that guide scientific research have been subjected as never before to critical examination. We have become more circumspect in our attitude towards natural "laws." We have attained to a clearer view of our working hypotheses—of their uses and their limitations. With the best of intentions

[1] Address of the President of the American Association for the Advancement of Science, Philadelphia, December 28, 1914.