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### CONTENTS

Some Applications of Paleontology: Professor WIL- LIAM BERRYMAN SCOTT	327
The Contribution of Biology, Chemistry and Physics to the Newer Knowledge of Rickets: Dr. Alfred F. HESS	333
Acoustics of Auditoriums: PROFESSOR F. R. WATSON	335
Scientific Events:	
The Population of the United States; Appropria- tions by the Commonwealth Fund; The Fourth Pacific Science Congress; Award of Fellowships by the Guggenheim Foundation	339
Scientific Notes and News	341
University and Educational Notes	344
Discussion and Correspondence:	
Science and Secretaries: DR. BAILEY WILLIS. Re Speciation without Climatic Change or Geo- graphic Isolation: J. T. NICHOLS. Weight and Humidity: PROFESSOR ARNOLD ROMBERG and L. W. BLAU. Lepidoptera of New York: PROFESSOR WM. T. M. FORBES. The Eastland Horned "Toad": WILLIS G. HEWATT. The Brasso Fossiliferous Miocene of Trinidad: DR. CARLOTTA J. MAURY	345
Scientific Books:	
The Cephalaspidae: Dr. Roy L. MOODIE	348
Scientific Apparatus and Laboratory Methods: A Universal Muscle Lever: ALVAH R. McLAUGH- LIN. Method for Growing Small-seeded Plants under Sterile Conditions: A. B. BEAUMONT and G. J. LARSINOS	349
Special Articles:	
The Overwintering in Massachusetts of Ixodipha- gus Caucurtei: F. LARROUSSE, ARTHUR G. KING and S. B. WOLBACH. An Efficiency Formula for Dairy Cows: PROFESSOR W. L. GAINES	351
Science News	x
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## SOME APPLICATIONS OF PALEONTOLOGY<sup>1</sup>

PERHAPS the most remarkable feature in Dr. Joseph Leidy's mental make-up was the immense variety of his scientific interests and achievements. I would use the word *versatility* to describe him, were it not that that term usually implies a certain degree of superficiality, which was utterly foreign to Leidy's mind, for thoroughness and minute accuracy were characteristic of him.

Last year, the centenary of Dr. Leidy's birth was celebrated in the Academy of Natural Sciences in Philadelphia. at which each one of a number of speakers dealt with his own specialty and with Leidy's activity in that particular branch of science. I think that every one who attended that celebration was astonished to hear that fields which they had never associated with Leidy's name had been successfully cultivated by him. For instance, I imagine that very few people knew anything of Leidy's work in botany, or in geology, matters which lie outside of the range of work with which his name is usually associated, even by those to whom he was more than a name in America's honor-roll. Among all those strikingly varied fields which he cultivated so successfully, there is none, I think, which has so contributed to his fame throughout the world as that of paleontology, especially of the vertebrates. In this work Leidy was a pioneer. There had been some work done by such men as Wistar and Harlan in Philadelphia, Mitchill and DeKay in New York; but these men had dealt with such fossil remains as are found in the Eastern States, occurring near the surface of the ground and of very late geological date, including mastodons, horses and ground sloths. It was once thought, both in this country and in Europe, that North America contained no fossil vertebrates of any particular interest or importance, and that, in this respect, we should have to admit inferiority to South America and to the Old World. The first breach in this tradition was made by Leidy, when he began to receive through Dr. Hiram Prout, of St. Louis, fragmentary fossils brought in by the fur-traders from that marvellous and inexhaustible field of discovery, the White River Bad Lands of what was then Nebraska Territory.

<sup>1</sup> No. IV of the Leidy Memorial Lecture Series. Delivered at the University of Pennsylvania.

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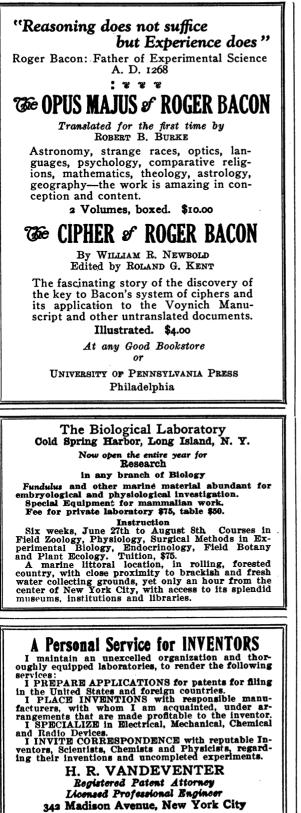
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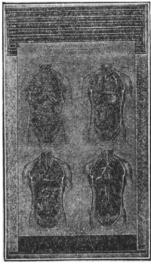
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