

SCIENCE

A Weekly Journal devoted to the Advancement of Science, publishing the official notices and proceedings of the American Association for the Advancement of Science, edited by J. McKeen Cattell and published every Friday by

THE SCIENCE PRESS

11 Liberty St., Utica, N. Y. Garrison, N. Y.
New York City: Grand Central Terminal

Annual Subscription, \$6.00. Single Copies, 15 Cts.
Entered as second-class matter January 21, 1922, at the Post Office at Utica, N. Y., under the Act of March 3, 1879.

VOL. LV MAY 12, 1922 No. 1428

<i>The Factor of Safety in Research:</i> PROFESSOR A. FRANKLIN SHULL.....	497
<i>What becomes of the Fur Seals:</i> G. DALLAS HANNA	505
<i>Scientific Events:</i>	
<i>Loss from Animal Diseases; The California State Fisheries Laboratory; Mathematical Publications; Grants for Research by the National Academy of Sciences; The Eliakim Hastings Moore Fund.....</i>	507
<i>Scientific Notes and News.....</i>	510
<i>University and Educational Notes.....</i>	513
<i>Discussion and Correspondence:</i>	
<i>Did Humphry Davy melt Ice by rubbing Two Pieces together under the Receiver of an Air Pump?</i> PROFESSOR ARTHUR TABER JONES. <i>A Paracelsus Library in this Country:</i> DR. CARL HERING. <i>The Teaching of Evolution in the Baptist Institutions of Texas:</i> S. A. R. <i>The Metric Campaign:</i> HOWARD RICHARDS.....	514
<i>Scientific Books:</i>	
<i>The Biological Researches of Gustaf Retzius:</i> DR. O. LARSELL.....	516
<i>Special Articles:</i>	
<i>Polyploidy, Polyspory and Hybridism in the Angiosperms:</i> PROFESSOR E. C. JEFFREY, A. E. LONGLEY, C. W. T. PENLAND. <i>The Reaction of Drosophila to Ultraviolet:</i> DR. F. E. LUTZ, PROFESSOR F. K. RICHTMYER	517
<i>The American Association for the Advancement of Science:</i>	
<i>Section A—Mathematics and Associated Societies:</i> PROFESSOR WILLIAM H. ROEVER. <i>Section B—Physics—and Associated Societies:</i> PROFESSOR S. R. WILLIAMS. <i>Section K—Social and Economic Sciences:</i> DR. FREDERICK L. HOFFMAN. <i>Section N—Medical Sciences:</i> DR. A. J. GOLDFARB.....	519

THE FACTOR OF SAFETY IN RESEARCH¹

ONCE in the drear dead days unfortunately still fresh in memory the head of a great institution for the aid of education wrote, with reference to research, these words: "In the last two decades more sins have been committed in its name against good teaching than we are likely to atone for in the next generation." Evidently the time of reformation had not arrived when this disparagement was uttered, for some ten years later the same pen recorded history as follows: "Much of that which has gone on in American universities under the name of research is in truth only an imitation of research."

To some of you, more than commonly zealous in support of investigation and with a background of rural experience, these words may come with memories of the odor of new mown hay and visions of waving yellow fields and the reflection that excessive heat sometimes causes mental aberrations. For the quoted passages could have come only from an annual report, naturally written just after the end of the fiscal year; but unfortunately for this simple explanation, the fiscal year of the institution in question does not end in June, and the derogation of research was conceived in the cool gray days of autumn. Moreover no charge of alienation of reason could be brought against the author of these rebukes that would not lodge with equal justice in other quarters. The chief executive of another great institution which has done and is doing as much in the field of research as any of its kind in America voiced a similar sentiment thus: "Quite too much attention is paid to those who when they make some slight addition to their own stock of information fancy that the world's store of

¹ Address of the President of the Michigan Academy of Science, Arts and Letters, March 29, 1922.