

# SCIENCE

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<i>The American Association for the Advancement of Science:</i>	
<i>The Germinal Background of Somatic Modifications:</i> DR. M. F. GUYER .....	169
<i>The National Arboretum:</i> DR. FREDERICK V. COVILLE .....	176
<i>Obituary:</i>	
<i>Julius Buel Weems; August Tobler; Kamakichi Kishinouye; Recent Deaths</i> .....	178
<i>Scientific Events:</i>	
<i>Agriculture in the British Empire; Carnegie-Australian-Harvard Expedition to Northwestern Australia; The George Willis Pack Forestry Foundation of the University of Michigan; Gifts to the School of Forestry of Yale University; The Chilean Nitrate of Soda Nitrogen Research Award</i> .....	179
<i>Scientific Notes and News</i> .....	182
<i>Discussion:</i>	
<i>Bacterium granulosis and Trachoma:</i> DRS. E. B. TILDEN and J. R. TYLER. <i>The Passenger Pigeon:</i> DR. PHILIP HADLEY. <i>Severe Hail Injury to Trees and Shrubs:</i> GILBERT L. STOUT. <i>Man-made Earthquakes:</i> DR. E. H. SELLARDS. <i>In Aid of American Medical Biography:</i> DR. F. H. GARRISON .....	186
<i>Scientific Books:</i>	
<i>Gortner's Outlines of Biochemistry:</i> PROFESSOR WILLIAM SEIFRIZ .....	189
<i>Reports:</i>	
<i>The Cancer Research Fund of the University of Pennsylvania</i> .....	191
<i>Scientific Apparatus and Laboratory Methods:</i>	
<i>A Diet for Stock Rats:</i> DR. L. A. MAYNARD. <i>An Improved Calomel Electrode Vessel:</i> SAMUEL E. HILL .....	192
<i>Special Articles:</i>	
<i>Oceanographic Investigations in the Inshore Waters of the Gulf of Maine:</i> H. R. SEIWELL. <i>The Relation of the Oxygen Tension in the External Respiratory Medium to the Oxygen Consumption of Fishes:</i> ANCEL B. KEYS .....	194
<i>Science News</i> .....	x

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## THE GERMINAL BACKGROUND OF SOMATIC MODIFICATIONS<sup>1</sup>

By Dr. M. F. GUYER

DEPARTMENT OF ZOOLOGY, UNIVERSITY OF WISCONSIN

ON the theory apparently that all pleasures must carry a penalty of compensatory pain, some former grim group of zoological Puritans decreed that though this organization may eat, drink and be merry, it must in the end endure a retiring address, so-called presumably because it conduces to the usual result of retiring, sleep. No vice-president of Section F is ever brave enough to break the bonds of this ancestor worship, so you and I, fellow zoologists, are here alike victims of a tradition. Let's be merciful!

In venturing to speak briefly on the germinal background of somatic acquirements, you will observe that I have reversed the traditional order of this combination, the germinal foundation preceding the acquire-

<sup>1</sup> Address of the vice-president of Section F—Zoological Sciences, American Association for the Advancement of Science, December 31, 1929.

ment. Possibly this is the only novelty you will find in my remarks. But since general topsy-turviness is the order of the day, I can at least plead modernity. In these days when children run their parents, freshmen instruct their professors and wives support their husbands, why should not some of our venerable biological riddles be approached backward?

We used to dream of romance, with each yearning soul finding its unerring way to its predestined mate; we now talk of propinquity and endocrines. The dart of Dan Cupid seems slated for replacement by the hypodermic needle and a proper blend of hormones. We used to hear of sin; we now know only psychoanalysis and unsatisfied self-expression. We used to read of prepotencies and pointings, but this lore of the fancier has given place to the chemistry of the gene. So in such precedents of revolution and dis-

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