

results being given in the report. In addition to the researches mentioned, a number of routine tests were carried out in the various departments of the Reichsanstalt, some of these yielding interesting results from a commercial standpoint.

UNIVERSITY AND EDUCATIONAL NEWS

By the will of the late Senator William F. Villas the University of Wisconsin will ultimately receive his entire estate, valued at between two and three million dollars. By the provisions of the will, Mrs. Villas receives the income during her lifetime, and after her death her daughter receives \$30,000 a year. After the property is given to the university, part of the income will be reserved until the principal becomes \$30,000,000. The will provides for the erection of a Henry Villas Theater, and for the establishment of ten professorships, each with a salary of not less than \$8,000, nor more than \$10,000 a year.

By the will of Frederick Cooper Hewitt, Yale University receives \$500,000; the New York Post-graduate School and Hospital \$2,000,000, and the Metropolitan Museum of Art \$1,500,000 and the residue of the estate.

THE General Education Board has offered Richmond College, at Richmond, Va., \$150,000, on condition that an additional \$350,000 be subscribed.

NORWICH UNIVERSITY, at Northfield, Vt., receives an unrestricted endowment of \$100,000 by the will of Colonel C. S. Barrett, of Cleveland, O.

MR. W. J. HORNE, lecturer in physics at the South African College, Cape Town, has been appointed to the inspectorate of the Transvaal Department of Public Education as organizer for technical education.

DISCUSSION AND CORRESPONDENCE

THE AMERICAN SOCIETY OF NATURALISTS

TO THE EDITOR OF SCIENCE: Whether the American Society of Naturalists should be preserved or not depends on whether it has an important work to do and whether its work

can be coordinated with that of other societies so that it shall be regularly called upon to perform its proper functions. I, for one, think it has a more important potential part to play than ever before, but whether it shall be permitted to play that part depends upon the cooperation of naturalists in general.

It is argued by those who regard the Society of Naturalists as an anachronism that natural history is no more, that in the differentiation and specialization that accompany the development of science it has broken up into botany, zoology, etc., and that these special sciences are each amply provided for by at least two national societies. It does not, however, follow because we have societies of students of plants, ferns, animals, birds, pigeons, carrier pigeons, insects and butterflies that the Society of Naturalists has become unnecessary. I conceive that even if we had a national society for each *genus* of animals and plants there would still be biologists who would find in a grand meeting of such societies no home. Indeed, the more you multiply societies on the basis of the material studied the more need for a society which shall bring together for mutual conference persons working on the general biological *topics* that are common to plants, animals, insects, butterflies. Our modern societies work directly against such a result. I may be working on heredity in insects and you on heredity in violets, but we hardly speak as we pass by because, forsooth, you are a botanist and I am a zoologist. Consequently we attend different meetings and we fraternize with different colleagues while we read papers of precisely the same theoretic import at the same time in buildings far apart, you to your colleagues who are interested in fossil cycads, in the hourly rate of growth of a gourd, in the development of a moss, or in a bog-society, and I to my colleagues who are awaiting their turn to tell of their discoveries in the circulation of an earthworm, in the properties of a new nerve stain, in the bird fauna of Christmas Island and the distribution of the Characinidæ of Brazil. No wonder we have so little discussions at our meetings with the diversity of interests represented and the scattering of

workers on the same topics because they are working on different species.

What is the remedy? Seek an association of workers on *general* biological topics (of interest to more than one of the "sciences") for the presentation and discussion of the results of investigations on such topics. Such an association is already organized. The American Society of Naturalists is dignified by years of service and a membership that includes the most eminent of American biologists. Except in its early years it has been, as it now is, almost exclusively a *biological* society. For some years one of its principal functions has been to arrange for a discussion on some general biological topic. Matters of common interest to biological investigators would seem, therefore, to be its peculiar province. Consequently it can provide the required machinery for bringing together workers on general biological topics.

To meet the need the Society of Naturalists must extend somewhat its work and to do this the cooperation of the other scientific societies is essential. The society has been told for so long that its function is only to provide a discussion, an address and a dinner, that we have come to believe it. But, if it is necessary for the advancement of biological science that the naturalists should expand, recent tradition must not be permitted to stand in the way. Will the societies of anatomy, anthropology, bacteriology, botany, paleontology, physiology, psychology and zoology authorize their respective secretaries to constitute, together with the secretary of the Naturalists, a general biological executive committee to select a program for one day of the meeting period, which shall replace that of their individual societies? This day's program might consist entirely of "papers" or in part of "papers" and in part of a symposium. Time should be left for discussion. If the respective societies will do this then, I believe, "general biology" will receive a great impetus in this country.

One more point of great importance and difficulty is the relation of the American Society of Naturalists to the American Association for the Advancement of Science; for

if the Society of Naturalists has a rôle then it must not be crushed out, but fitted into a scheme. I suggest that it should seek to affiliate itself with the association on some such terms as these: The Society of Naturalists to be accepted as the Biological Division of the American Association for the Advancement of Science, and to have certain privileges on the council—its president to be first vice-president of the association, or something of the kind—to have general charge of the matters of common interest to Sections F, G, H and K, so that such matters shall be acted on by the executive committee of the Society of Naturalists before being adopted by the council of the American Association for the Advancement of Science. The Naturalists should continue its affiliation with the technical biological societies; thus it could serve as a needed medium between the technical biological societies and the biological sections of the American Association for the Advancement of Science, on the one hand, and the council of the American Association for the Advancement of Science, on the other. The proposed relation may be graphically expressed in the following scheme:

AMER. ASSOC. FOR THE
ADV. OF SCIENCE

Sect. A	(American Society of Naturalists)	
Sect. C	Sect. F	Amer. Anthropological Soc.
Sect. B	Sect. G	Amer. Physiological Soc.
Sect. D	Sect. H	Amer. Psychological Assoc.
Sect. E	Sect. K	Amer. Soc. Vertebrate Paleontologists.
Sect. I		Amer. Soc. of Zoologists.
		Assoc. of Amer. Anatomists.
		Botanical Soc. of America.
		Soc. of Amer. Bacteriologists.

Occupying the suggested position and managed by a committee of all the secretaries of the sections and independent societies listed above, the Naturalists could fulfill a number of important functions. It could arrange for joint meetings of the independent societies so as to secure a special rate; it could seek to minimize conflicts of programs when a technical society meets with the corresponding

section; it could arrange, as suggested above, for a program on general biological topics; it could, in its general meetings, take such action as it might see fit to advance any particular biological interest of common import.

It is not too late for the executive committees of the different technical societies to direct their secretaries to cooperate with the secretary of the Naturalists in arranging a general program for the Baltimore meeting.

CHAS. B. DAVENPORT

THE HIGHEST BALLOON ASCENT

TO THE EDITOR OF SCIENCE: I notice that Dr. Chanute in his review of "Airships, Past and Present," SCIENCE, July 3, 1908, says, "The greatest authentic height [in a balloon] attained by man has been 35,500 feet." In Hill's Chemistry for students of Medicine, Pharmacy and Dentistry (1903) the following occurs: "A balloon may rise to a great height, because of its great volume of gas lighter than air. The highest ascent was that of Glaisher in 1861, who attained an elevation of over 36,000 feet." This is found in the chapter on medical physics, page 18.

G. T. OVERSTREET

LOUISVILLE, KY.

[M. Glaisher (September 5, 1862) became unconscious at a height of about 29,000 feet, while still rising at the rate of 1,000 feet per minute. He was again able to make observations after thirteen minutes, at a height of about 26,000 feet and found that he was falling 2,000 feet per minute. From these data and from other corroborative circumstances he estimated that, in the interval, he had reached an altitude of 36,000 to 37,000 feet, but this has not been accepted as authentic. M. Berson's performance (July 31, 1901) is better established. Going up with a provision of compressed oxygen he took an observation at 34,500 feet, while still rising, and then became partly unconscious. He probably rose another 1,000 feet and certainly reached an altitude of 35,500 feet, or possibly of 36,000 feet. He had previously judged that human life was impossible at a height of 36,100 feet and that Glaisher could not have reached it, as "no human being has penetrated to such heights either before or since without taking a supply of oxygen."—Ed.]

SALARIES AT BRYN MAWR COLLEGE

TO THE EDITOR OF SCIENCE: In SCIENCE for August 14 appears a letter from Professor David Wilbur Horn, of Bryn Mawr College, criticizing certain financial data concerning that college, which had been reprinted in SCIENCE from a recent *Bulletin* of the Carnegie Foundation.

I venture to call attention again to the fact emphasized on the first page of this *Bulletin* that the statistical data published by the foundation were obtained in all cases directly from the authorities of the institutions themselves. In the case of Bryn Mawr, the statistics were furnished by President Thomas and had apparently been prepared with great care, all the items being in her own handwriting.

HENRY S. PRITCHETT

THE CARNEGIE FOUNDATION FOR THE
ADVANCEMENT OF TEACHING

QUOTATIONS

THE TRIUMPH OF SANITATION AT PANAMA

THE redemption of the Panama Canal Zone from preventable diseases receives official confirmation in the report to President Roosevelt of the special commission appointed last April to investigate the work accomplished. The importance of the hygienic problem involved is emphasized by the commission in reviewing the difficulties under which the French labored in their efforts to construct the canal. The report says:

The terrible scourge of yellow fever against which the French struggled in vain, the filthy and pest-breeding state of the principal Panama towns, the rough labor camps and other pioneer hardships of the first two eras have been eliminated through the brilliant and persistent activity of the department of sanitation, the department of municipal engineering and the building department. To-day we find yellow fever driven from the isthmus, malaria and pneumonia greatly reduced and a high average of health established. Although the government's immediate object on the isthmus is to dig the canal and to provide living quarters for a temporary enterprise, it has, in fact, created comfortable homes and well-organized social communities for its working force.