

It would be interesting to test the strength and endurance of perfectly fresh specimens under normal, sea conditions.

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### THE FIRST FREE-LIVING FRESHWATER JELLYFISH FROM SOUTH AMERICA

THIS past March, Mr. German Frick, an engineer residing in Santiago, Chile, was much surprised to see jellyfish moving about in a small body of fresh water in Tranque Marga-Marga, near Quilpué (Province of Valparaíso), 40 kilometers from the sea. Seeking more information about them, he took several of them to the senior author who, in turn, appreciating the uniqueness of the discovery, forwarded the specimens to the U. S. National Museum, along with a very realistic, original sketch of the animals.

A comparison with preserved material in Washington readily permits the identification of both sketch and specimens with the well-known widely distributed *Craspedacusta sowerbii* (Lankester). This species has heretofore been reported from Europe (Austria, Czecho-Slovakia, England, France, Germany, Holland, Poland and Russia), Asia (China and Japan), the Hawaiian Islands, twenty of the United States of North America, Panama (in the Canal Zone near Barro Colorado Island) and from an aquarium only at Porto Alegre, Brazil.<sup>1</sup> The present record, however, is the first for the free-living freshwater medusae in South America.

The medusae varied from 5 to 10 mm in diameter. They were much disintegrated after their long voyage to North America. There were at least five series (sizes) of tentacles, and probably seven in the largest specimen; the smallest specimen had only four series.

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### DEFORMATION OF ROCK STRATA BY EXPLOSIONS

A RECENT note by Boon and Albritton<sup>1</sup> mentions the Sierra Madera Dome of western Texas as an example of a structure which might possibly have been formed by explosion from a meteoric impact.

It happens that in the course of a routine gravity survey in Pecos County, Texas, stations were made on and around Sierra Madera. The results of this work have been indicated in another connection in a

<sup>1</sup> Rudolf Gliesch, *Egatea*, 15: 145-148, figs. 1-11. Porto Alegre, Rio Grande do Sul, 1930. Gives notes on occurrence of both polyps and medusae in an aquarium at Porto Alegre; *Microhydra* is synonymous with *Craspedacusta*.

<sup>2</sup> J. D. Boon and C. C. Albritton, Jr., *SCIENCE*, n.s., 96: 2496, 402, October 30, 1942.

paper by Hammer.<sup>2</sup> The gravity work indicates a positive gravity anomaly with a relief of about 3.5 mg.<sup>3</sup> Presumably if the geologic structure were caused by a meteoric impact, the only explanation for the positive gravity anomaly would be excess mass brought in by the meteor. The form and width of the gravity anomaly can be accounted for by a concentrated (*i.e.*, spherical) mass with its center at a depth of the order of 8500' and with a total excess mass of the order of  $4 \times 10^{15}$  grams. If it were assumed that this were a sphere of meteoric iron, the required diameter would be about 3000'. The gravity anomaly is quite well centered over the topographic feature and therefore the excess mass must be substantially vertically below the surface geologic feature.

The depth and mass required to explain the gravity anomaly both seem much too large to be associated with a meteorite. Therefore, the geophysical contribution makes it seem much more probable that this feature is caused by igneous intrusion or some other more ordinary geologic processes rather than being the result of a meteoric explosion.

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### SEGREGATION OF TYPE SPECIMENS

THE result of inquiries made by a committee of the Systematic Section of the Botanical Society of America and the American Society of Plant Taxonomists shows that of about 76 North American herbaria known to contain type specimens, 23 keep their types segregated from the main collections. In 8 of these, including the U. S. National Herbarium, Gray Herbarium, New York Botanical Garden, Philadelphia Academy, Rocky Mountain Herbarium and the herbaria of the Universities of Pennsylvania, North Carolina and Arizona, the segregation is in progress, but not complete. The Los Angeles Museum has its types stored in a vault in the interior of the country for the duration of the war. The U. S. National Herbarium is preparing to move its type collection to a safer location during the war, but this has not yet been accomplished. The New York Botanical Garden is in the midst of the process of segregation, and as the types are removed from the main collection, they are being sent to an institution in a safer locality.

About 20 of the collections containing types are housed in buildings which are not fireproof. This includes such important herbaria as the U. S. National Herbarium, the Bailey Hortorium and the Arthur Herbarium of rust fungi at Purdue.

What the above means is that in at least 20 American herbaria types are exposed to the risk of fire,

<sup>2</sup> Sigmund Hammer, "Terrain Corrections for Gravitometer Stations," *Geophysics*, 4: 3, 187, July, 1939.

<sup>3</sup> 1 mg. = 1 milligal = .001 cm/sec.<sup>2</sup>

and in at least 53 they are handled every time the covers of the species they represent are taken out, even for routine determination, filing, etc. Over a period of years this handling inevitably results in breakage.

Considering that types are irreplaceable and that they are one of the basic assets of the science of botany, the complacency of American botanists is indeed remarkable. That many European scientific

institutions have been severely damaged by bombs is an indisputable fact. Yet apparently only three institutions in the United States are taking steps during the war to get their types out of bombing range. This is almost beyond belief, considering the magnitude of steps taken in other aspects of civilian defense throughout the nation.

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## QUOTATIONS

### THE PITTSBURGH MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE<sup>1</sup>

TO THE MEMBERS OF THE AMERICAN ASSOCIATION FOR  
THE ADVANCEMENT OF SCIENCE:

WHEN the American Association for the Advancement of Science and all similar societies planned their winter meetings, the present situation could not have been foreseen. We had not even entered the war, and did not dream of a congestion of transportation such as now exists. When the present situation had developed, it was (in the opinion of a majority of the committee having power) too late to postpone our meeting.

Transportation is now so greatly overtaxed that necessities of life can barely be carried; the railways should be spared every extra burden. Great simultaneous pilgrimages on important trunk lines are especially to be avoided, since they demand extra trains, needing extra locomotives and coal, and causing much confusion. Therefore, in my opinion it behooves every patriotic and unselfish member to consider very seriously whether he can really serve his country by attending the meeting, or whether he can not better serve in this fateful time by staying at home, especially during a period of highly congested travel, when many of our soldiers may wish to take

leave of their families before departing for the front. I believe that only those persons bringing really important contributions to the problems of the war should attend such meetings now. All others, in my opinion, should conserve their money for Liberty bonds and for those in distress, and should save their strength for action in this time of extraordinary crisis. For these reasons, with great regret, I have decided not to attend the meeting at Pittsburgh.

So far as I have been able to ascertain, all the responsible authorities at Washington concerned with transportation agree with me as to the importance of avoiding unnecessary journeys in such a crisis.

The very great usefulness of the American Association for the Advancement of Science is not dependent upon the unbroken continuity of its social meetings.

Science is incalculably important, indeed indispensable, in this world-wide cataclysm. The excellent work of the association in the past is now bearing fruit; but this moment demands action rather than general discussion. We must devote all our energies to winning the war. Let us all make every endeavor to apply our knowledge and strength in our country's noble cause.

THEODORE W. RICHARDS,  
*President of the Association*

CAMBRIDGE, MASS.,  
DECEMBER 15, 1917.

## SCIENTIFIC BOOKS

### CHEMISTRY

*The Chemistry of Organic Medicinal Products.* By GLENN L. JENKINS and WALTER H. HARTUNG. xii + 457 pp. Planographed by John S. Swift Co., Inc., St. Louis. 1941. 6½ × 9½ in. \$3.00. Bound in stiff paper.

THIS book, by the dean of the Purdue University School of Pharmacy and the professor of pharmaceutical chemistry of the School of Pharmacy of the University of Maryland, has been written primarily

<sup>1</sup> SCIENCE, December 28, 1917, p. 638.

as a text-book for those advanced students in pharmacy who have had the requisite training in chemistry, particularly organic chemistry, but should prove useful also to the organic chemist interested in this field and to the medical practitioner who wishes to know something more about the chemistry of the drugs he is prescribing.

The classification of the subject-matter is strictly chemical, although not following entirely the customary division into the major groups of I. Acyclic (or Aliphatic), II. Isocyclic, and III. Heterocyclic.