

The field relationships suggest that the "gastroliths" were originally stream or pediment gravels and that the high polish was superimposed by the action of wind-blown dust upon surfaces already smoothed and rounded by other agencies. It should be noted that the Morrison shales are highly bentonitic and must have contained a high proportion of sharp, volcanic, glass shards which would have been very potent abrasives at the time of deposition. The stones probably accumulated by deflation in the same manner as modern "desert armor" and the bright coloration may be due to prolonged exposure to weathering. The lack of faceting, case hardening and pitting is by no means a fatal objection as these seem to result from local and specialized conditions and do not always accompany wind erosion.

Until a connection between the dinosaurs and these highly polished stones is proved it seems advisable to abandon the term "gastroliths" in favor of some non-committal designation. The term "Morrison stones" may be used in a sense analogous to the "Gobi stones" of the Asiatic Irwin Manha formation, the two occurrences being in many ways similar.

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#### THE SMYRNA FIG IN CALIFORNIA

IN SCIENCE (94: 339), it is stated that Dr. Gustav Eisen introduced the Smyrna fig into California. This is an error. Cuttings from Smyrna were brought into California at the instance of G. P. Rixford, in 1880, and also in much earlier years, perhaps in the 1850's, by other persons of whom there is no record. None of these trees matured fruit, which led Dr. Eisen to believe the failure was due to lack of pollination (caprification), a surmise confirmed by an experiment in artificial pollination first made by George C. Roeding at Fresno in 1890. Pollen from a caprifig tree

was inserted with a goose quill in young figs of a Smyrna tree. The figs matured and became fully ripe. Eisen himself, in 1895, carried pollen from caprifigs, in a sealed glass container, to Smyrna fig trees two hundred miles distant in the upper San Joaquin Valley in Kern County and pollinated young figs. This experiment proved completely the need of caprification. In the course of time Eisen and his former associate, Mr. Roeding, interested the United States Department of Agriculture in the problem and through the department's agents a colony of the blastophaga wasp was sent from Algiers to California in 1898. The introduction of the wasp proved successful and the growing of Smyrna figs was soon established on a commercial basis. Blastophagae had been previously introduced by fig growers but apparently were a failure.

Eisen's monograph on the biology of the fig<sup>1</sup> may be considered classical and is still consulted by students and by horticulturists.

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#### AEDES AEGYPTI LINNAEUS, THE YELLOW FEVER MOSQUITO, IN CENTRAL MISSOURI

LATE in September mosquito larvae were found in a small aquarium in the office of the State Health Commissioner. These were taken to the Laboratory of the State Department of Health where, on October 4, 1941, an adult emerged that proved to be of this species.

This location, Jefferson City, is near the center of the state, about 38.6 degrees north latitude, and probably is the "farthest north" for the species in Missouri.

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## QUOTATIONS

#### THE WORK OF THE ROCKEFELLER FOUNDATION IN BRAZIL

THE twenty-fifth anniversary of the beginning of the work of the International Health Board of the Rockefeller Foundation in Brazil has been enthusiastically commemorated. Besides articles in newspapers and in medical magazines, some medical associations have held special meetings to honor that humanitarian institution. The most brilliant of these meetings was one promoted by the oldest medical association of Brazil, the National Academy of Medicine. Under the chairmanship of Professor Aloysio de Castro of the University of Rio de Janeiro Med-

ical School the academy held a crowded meeting to honor the Rockefeller Foundation in the person of Dr. Fred L. Soper, its representative in Brazil. The principal speaker was Dr. Afranio Peixoto, professor of hygiene at the university, who reviewed the most salient facts in the services rendered by the foundation especially in the fields of medical education, public health nursing, instruction of sanitarians and the investigation and control of yellow fever, malaria and hookworm disease. Two medical commissions were sent to Brazil early in 1916, the first under Major

<sup>1</sup> Proceedings of the California Academy of Sciences, ser. 2, 5: 897-1003, 1896.

General William C. Gorgas, to study the yellow fever situation, and the second, composed of Drs. Richard M. Pearce, John A. Ferrel and Bailey K. Ashford, to survey the grounds of medical education, hospitals and dispensaries, public health agencies and sanitary progress. In the same year an effective cooperation began with the Brazilian National Department of Health and with the São Paulo University, growing little by little and leading to the great development resulting in the medical and public health institutions and services now in operation. One lasting result of this cooperation is the University of São Paulo School of Medicine, now housed in a magnificent building of many stories and provided with a faculty of distinguished professors. It is a long work begun with the cooperation of Drs. Samuel T. Darling and Wilson G. Smillie, whose services were an honor to American medical science. To-day the São Paulo school is one of the best on the American continent, and its department of hygiene is a leading institute of scientific research in the country. In the field of public health too the cooperation of the Rockefeller Foundation was of the greatest value. The work against hookworm disease begun in 1916 and greatly developed since 1920 has led to the creation of many modern county health units. With the cooperation of the foundation in 1922 the first training school for nurses was founded in Rio de Janeiro, and a Nursing Division was started in the department of health of the city with an able body of ten American public health nurses as supervisors. This led to the creation of a few training schools for nurses in several cities of a large country where the professionally trained nurse was completely unknown before. The nursing service of the department of health of Rio de Janeiro is now an efficient and popular modern agency of health. With the help of the International Health Board of the Rockefeller Foundation, the School of Hygiene and Public Health of the Johns Hopkins University lent the services of two able professors, Drs. Allen W. Freeman and James A. Doull, to start a course of instruction for sanitarians in the medical school of Rio de Janeiro, and the foundation granted fellowships to many Brazilian public health workers, who went to the United States to study at leading

American schools and to visit different public health organizations.

With the support of the Rockefeller Foundation a complete survey of the yellow fever situation developed in the discovery of the jungle form of the disease, the disclosure of sylvatic mosquito vectors other than *Aedes aegypti* (as *Hemagogus capricorni* and *Aedes escapularis*), the invention of the viscerotome as the leading means of postmortem diagnosis of yellow fever and, through the work of the Rockefeller Institute, the creation of an efficient vaccine, now injected into millions of people, thus protected against the sylvatic yellow fever, as the only practical prophylactic resource. Brazil is also indebted to the Rockefeller Foundation for the help in the fight against *Anopheles gambiae*, the worst vector of malaria, imported into Brazil from the west coast of Africa. Some species of anopheles are more susceptible to infection than others; some anopheles mosquitoes will not bite man at all; others will bite man only when other animals are not available. *Anopheles gambiae* of Africa, which had spread through the states of Rio Grande do Norte and Ceara, entering the great airport of Natal, Brazil, has probably the highest infectibility and the greatest preference for man of all Anophelines. This makes that species the most important vector of malaria in man. The intensive campaign against the *gambiae* conducted by the malaria service of the Brazilian health department with assistance in funds and personnel from the International Health Board of the Rockefeller Foundation is an outstanding example of "species sanitation." The measures concentrated on were those which would prevent the breeding of *gambiae*. The eradication of the imported *Anopheles gambiae* is a paramount example of what is possible through the use of modern anti-malarial technic, available to the Brazilian health authorities through the invaluable cooperation of the Rockefeller specialists.

Professor Peixoto praised the humanitarian work of the Rockefeller Foundation in Brazil and commended Dr. Soper for his ability to win the friendship of Brazilian physicians, thus insuring once more the unity of the Americas.—*Rio de Janeiro Correspondent of the Journal of the American Medical Association.*

## SOCIETIES AND MEETINGS

### THE CRYSTALLOGRAPHIC SOCIETY

A STATED meeting of the Crystallographic Society was held on November 17, 1941, in Room 4-345, Massachusetts Institute of Technology, Cambridge, Mass. Twenty-six members were present. The proposed constitution and by-laws were discussed and

approved, and the organization was placed on a formal basis. The following officers were elected for 1941-42: Professor Martin J. Buerger, *President*; Professor Harry Berman, *Vice-President*; Dr. Clifford Frondel, *Secretary-Treasurer*. At the close of the business meeting, Mr. Joseph Lukesh spoke of work carried on jointly by him and M. J. Buerger