

South America to Africa to account for such facts. Such hypothetical "land bridges," perhaps imagined, for a single group of animals, introduce many more problems than they explain. Darwin writes of land-bridge theorizers as "constructing continents as easily as a cook makes pancakes." If we are critical of the "land-bridge" explanation for great discontinuities of distribution we must seek other explanations.

It is obvious that the most important evidence in this whole field of inquiry is presented by fossil remains. As evidence accumulates from extinct forms of the groups of animals or plants concerned, we may find that many present day discontinuities are only apparent. We now know that marsupials lived in both North America and Eurasia in early geological periods, and interpret their occurrence in Australia and South America as remnants of their formerly continuous range. The river-turtles of the genus *Podocnemis*, with their solid shells, have left a goodly number of fossil remains. It was at first surprising to find these turtles in the Eocene of England and Egypt. Now that we have such fossils from South America and Africa as well, we find a nearly world-wide range in the Eocene as the explanation of the modern relicts in Madagascar and South America.

The expectation of an earlier age for the more northerly fossil forms is based on the greatest generalization about dispersal we are able to make—that the great land-masses of the north have been the principal theaters of animal evolution and progress, and that the southern continents, projecting as great peninsulae from the northern continents, have for ages received the earlier and more primitive forms displaced from the north by their more efficient descendants or successors.

BIOLOGICAL REVOLUTION STILL UNEXPLAINED

Our new *Podocnemis* from Arkansas casts still further light on the dispersal of the group as a whole. While all the living species are strictly confined to fresh waters, and this seems to be the case also with the fossil forms hitherto known, the beds in which *Podocnemis barberi* was found are plainly marine, with marine shells and remains of marine fishes. We may thus suppose that *Podocnemis* gained its wide distribution along the coasts of the Cretaceous seas. Its modern habitat may then be interpreted as a retreat from the sea to a refuge in fresh-waters, and this may perhaps also be correlated with the still unexplained revolution which affected the life of both sea and land at the end of the Age of Reptiles.

Thus *Podocnemis barberi* of Arkansas takes its place with *Podocnemis madagascariensis* as part of the growing accumulation of evidence about the past and present distribution of animal life on our earth, which, as the science of *animal geography*, constitutes one of the principal fields of inquiry in a research museum.

GUAIACUM

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HAILS NEW LARD PROCESS

CHICAGO, June 17 (AP)—John Holmes, president of Swift & Co., announced today the discovery of what he described as a "revolutionary development" in the processing of lard, terming it the most important improvement in the oldest of shortenings in the past fifty years.

The development, he said, involves the addition of small quantities of a vegetable substance obtained from tropical trees, making it possible to protect lard's natural advantages and at the same time keeping it fresh when exposed to air without refrigeration.

The vegetable substance, known as gum guaiac, comes from the sap of the *guaiacum* tree, which grows in the West Indies and Central America.

He described the discovery as of "vital importance" to the nation's 4,000,000 hog producers, as well as to all housewives, grocers, meat dealers, chefs and bakers.

The latest development is the result of research which began a decade ago. Dr. R. C. Newton, Swift's chief chemist, and Dr. D. P. Grettie of his staff jointly share the discovery.—*New York Times*.

The discovery of America, in addition to the many other world-changing effects it engendered, added several varieties of drug plants to the European pharmacopoeia. Chief of these were jalap, Peru- and Tolu-balsams, ipecac, sarsaparilla, guaiacum and



Branch of Guaiacum

Exhibit in Martin A. and Carrie Ryerson Hall representing a tree found in Caribbean lands from some of the Florida keys, and the West Indies and Mexico, to northern South America. For many years important because of its wood, *lignum vitae*, once highly reputed as the source of a remedy, the tree recently gained new prominence as the source of an extract used for preserving lard without refrigeration.

quinine. The last named was, of course, the most important of all. In the sixteenth and seventeenth centuries, before the discovery of quinine, the outstanding American remedy was guaiacum, the dark greenish-brown, sometimes almost black and ebony-like heartwood of a small or medium size tree. The guaiac tree is native on most of the West Indian islands, and on some of the Florida Keys, and is represented by closely related species on the Mexican and Central American mainland and in many parts of northern South America.

Guaiac trees first came to the attention of the Spaniards in 1508, in Santo Domingo, where they noticed the Indians making use of the wood for skin affections. When,

towards the end of the sixteenth century, syphilis with its accompanying skin lesions became a scourge in southern Europe, guaiacum acquired a great reputation as a remedy and came rapidly into extraordinary demand. The wood was called *lignum vitae*, or wood of life, because of its supposed medicinal properties. On the strength of the medico-religious dictum cited by Monardes, that "such is the wisdom of God, that where a disease appears there a remedy is provided," the existence of guaiac trees in the New World was accepted as certain evidence of the American origin of the disease which it was supposed to cure. It has also been used as a remedy for scrofula and rheumatism.

The wood was exported in large quantity to Europe so that in the West Indies the guaiac trees almost suffered extermination. Fortunes are said to have been made in the trade in this wood. It sold for as much as seven gold crowns a pound. A Spaniard who first occupied himself with its export is said to have gained in a short time 300,000 gulden. The bark and the resin obtainable from the tree were also used, and the sapwood was declared by some authorities to be even more powerful than the heartwood. Now widely known as *lignum vitae*, the wood is famous for its hardness and weight. It is always in some demand but is not very abundant. Because of its tenacity and self-lubricating properties it is used for wooden bushings or bearings for propeller shafts on steam and motor ships.

As a drug, both the wood and its extract are now obsolete. As a tincture it is still listed as official in the United States Dispensatory, but it is approaching the oblivion which has overtaken so many formerly highly reputed items of the apothecaries. It is therefore interesting to see it figure in the limelight of the daily news as a discovery "of vital importance," though this time not as a certain remedy for disease, but in the packing industry as a preservative for lard.

Model of New Guinea "Lum"

A model of a "lum" is on exhibition in Joseph N. Field Hall (Hall A).

A lum is an odd type of structure found in native villages in New Guinea. Lums are used as houses for unmarried men of the tribe, and for shelter of guests. Each village has one or more of them. They are supported on carved posts, and the walls are made of large planks carefully carved and ornamented. The designs represent the family "crest" or "coat-of-arms" of the chief man or men of the village. The open space under the sleeping room is used as a working and lounging place. Under the floor of the lum are placed charms to cause injury to anyone who enters without the right to do so.

An extensive exhibit of cave products is a feature of Clarence Buckingham Hall.



1940. "Model of New Guinea "Lum"." *Field Museum news* 11(8), 5–5.

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