

supplied money from its Penrose Fund, the Woods Hole Oceanographic Institution, which loaned its research ship, the Atlantis, to Dr. Ewing, and engineers of the E. I. du Pont de Nemours Company, who worked out special explosive equipment with Dr. Ewing.

Coal Age Dustbowl

Wind-scarred rocks, grim evidence that Colorado endured a desert climate a quarter of a billion years ago, while luxuriant rainforests thrived in coal-forming bogs in the eastern United States have been discovered in the upper layers of the Fountain Sandstone. They were described by Dr. W. H. Schoewe, University of Kansas geologist.

Found in the upper layers of the sandstone that forms the red pinnacles and buttes on the Rocky Mountain front, these stony evidences of ancient dustbowl conditions are the first of that age found in the United States. Swirling dust of 250,000,000 years ago carved the rocks into easily recognized sharp-edged forms, which were buried in the desert sediments laid down in the desert bed of a drying sea. Later desert deposits covered them. Today, they are just being exposed again as the surrounding rock wears away. Other similar stones have been found nearby in rock beds of later ages, says Dr. Schoewe.

Beaches Go and Come

California's beaches are cut away during the winter, and built up during the summer, according to many observations made during the past generation. Studies of the ocean floor near these beaches, reported by Drs. U. S. Grant and F. P. Shepard, oceanographers of the Scripps Oceanographic Institution at La Jolla, Calif., show that the sea floor is changed as the beaches advance and recede.

Near Santa Monica, the sea floor was built up as the beaches were cut away, while at La Jolla the sea was deepened for at least 1,000 feet from shore when the shore was cut away.

America Wearing

Rain and snow, floods and dust storms, are wearing away North America. It is only a matter of years until it will be all worn away to sea level, provided the continent does not rise as it has done in the remote geologic past. The speed of this wearing away, and how it will progress during the distant future has been studied by Dr. Alfred C. Lane, Tufts College radioactivity expert, who reported that erosion proceeds very much like radium disintegration.

Blisters Make Mountains

Blisters of hot materials deep in the earth, followed by undertows of viscous molten rock, may cause the building of mountain ranges, according to a theory of mountain-making presented by Dr. John L. Rich, University of Cincinnati geologist. When a mass of rock is heated by radioactive disintegration, a blister is formed as the rock expands. As the blister rises, the surrounding area sinks, in part because of the deposition of materials on it as the elevated blister is eroded. Deep in the earth, currents



GALL INSECTS AND INSECT GALLS

Largest collection in the world of these interesting objects was shown in Indianapolis by Prof. Alfred C. Kinsey of Indiana University.

Suppose, said Dr. Lane, that the average elevation of North America is 2000 feet above sea level, and also that the continent is wearing away at the rate of 1 foot in 1000 years. Then, according to some theories, the entire continent would be worn away to sea level in two million years. According to Dr. Lane's theories, this is not the case at all. The erosion rate does not remain constant as the lands wear away. Removing the second foot would not take 1000 years, but longer.

Using his formulae, Dr. Lane calculates that to wear away 200 feet from North America would not take 200,000 years, but a much longer time—eighteen million years.

of rock are set up, which continue until a pressure-balance is reached.

Atoms Shape World

Submicroscopic atoms of radioactive elements, disintegrating and producing heat, may be responsible for the present terrestrial topography, according to a theory presented by Dr. Bailey Willis, Stanford University geologist, who returned recently from a year's research in the south Pacific area.

Radium and similar elements, irregularly distributed through the earth's crust, cause local "melting spots" as it breaks down into simpler materials such as helium and lead, with the release of heat, according to this theory.

Eventually, the local "melting spot," technically named an asthenolith, grows, migrates, and causes intrusions of molten material into and under the surface rocks. Our mountain, plains, lava flows, and sea basins are thus all the result of terrestrial "hot boxes."

Cores in Mountains

Cores of once-molten rock, resembling gigantic inverted duckpins, recently discovered in the Henry Mountains, of Utah, were described by Dr. Charles B. Hunt, of the U. S. Geological Survey.

Rising through sandstones and shales during the early Mesozoic period, when