same region, as well as from trunks of both conifers and broad-leaved trees in Kentucky, appear to be in a "closed-down" condition in specimens collected during the winter months. The Oregon broad-leaved trees also seemed to have a period of little or no growth enforced upon them by the midsummer drought of the region.

Thus condemned to inactivity during two long periods in each year, while their evergreen competitors are able to grow continuously throughout nine or ten months of mild, moist autumn, winter and spring, the broad-leaved trees have lost the race for supremacy in the Northwest Coast region and the forest there has come to consist almost entirely of such conifers as Douglas spruce, grand fir, coast cedar and yellow pine.

Prof. Hemenway has communicated a brief preliminary report of his investigation to *Science*, with the statement that a complete detailed account will be published shortly.

Science News Letter, November 18, 1933

ENTOMOLOGY

Bee Uses 22 Muscles When She Stings You

WHEN A BEE stings you, she uses 22 muscles to carry through three distinct movements of her weapon. So says R. E. Snodgrass of the U. S. Bureau of Entomology, in a report on the morphology of the insect abdomen which has just been issued by the Smithsonian Institution. The first movement thrusts the sting out, the second swings it downward, and the third works the little lancets that bury the sting in the victim's flesh.

The sting of a bee or wasp, Mr. Snodgrass states, is a modified ovipositor or egg-laying organ, and the poison-sac that supplies it with its peculiarly painful ammunition is one of the accessory sex glands. The idea that a bee "feels around" for a favorable place to thrust home its dagger is a fable, he continues. Stinging is largely an automatic art. When a bee "sits down" on her victim, "the highly mobile abdomen swings around in all directions and the decurved tip strikes at random until an object is encountered which, if nothing else presents, may be the body, head, or mouth of the bee herself."

Science News Letter, November 18, 1933

Tasteless quinine is a recent product of the laboratory.

ORNITHOLOGY

American Ornithologists Celebrate Semi-Centennial

"Native Wood-Notes Wild" Caught With Sound Truck; 58,000 Birds Banded by Businessman-Naturalist

BIRD SONGS, recorded with motion pictures of the birds themselves, were demonstrated before the meeting of the American Ornithologists' Union in New York by a hunting team consisting of two scientists and one financier: Prof. A. A. Allen of Cornell University, Albert R. Brand, New York banker, and P. P. Kellogg, Cornell graduate student.

Most ornithologists, even professional ones, are satisfied if they can get close enough to a bird and its nest to get a good photograph, either movie or still, but Mr. Brand has succeeded in stalking his shy quarry with the whole ponderous heavy artillery of a sound-recording truck.

Mr. Brand went about the business of hunting songs with a sound truck in a most business-like way. Having "graduated" from Wall Street, he enrolled as a student at Cornell University, and studied ornithology under Prof. Allen for a whole year. Then he made an alliance with him and Mr. Kellogg, and the three went a-hunting for bird songs.

Any one who has ever seen the elaborate precautious taken against extraneous sounds in a "talkie" studio, where a dropped leadpencil or a cough is almost a capital offense, will appreciate the difficulties faced by the song-hunting expedition in the field, where no amount of shushing can stop leaves from rustling, insects from shrieking close to the "mike," or lonesome cows from mooing.

Evolution in Tennessee

Tennessee, once the eruptive center of anti-evolutionary activity, is now the scene of one of the most interesting bits of contemporary evolution. For in that state there has been produced, by natural processes, a beautiful red variety of the native quail or bob-white. Dr. Herbert Friedman of the U. S. National Museum, told of the development of the new variety and of the good work of Tennessee naturalists and game authorities in encouraging and propagating it.

Fifty-eight thousand birds, each with a light metal band around one leg telling where it had been, have passed through the hands of W. I. Lyon of Waukegan, Ill. Mr. Lyon makes his living as a real estate dealer, and follows ornithology as a scholarly hobby. At the meeting of the Union, he reviewed his years of activity as a bird bander. His records show that he has taken part in tracing the migrations and other life activities of no less than 58,000 birds.

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BOTANY

Strange Puffball Has Stalk Ending in Foot

A PECULIAR fungous growth from the Colorado Desert is being studied by Elizabeth Eaton Morse, graduate student at the University of California. It looks like a tall puffball growing at the top of a woody stem with a much enlarged base.

At first sight, the finder might mistake the plant for the common shaggy-mane mushroom, *Coprinus comatus*. But if it is split along its length, one finds that the structure within is entirely different from that of any gill fungus. The scaliness of the outer coat contributes to the deception.

Miss Morse has received specimens from lands far removed, all from desert or sandy regions within forty degrees north and forty degrees south of the equator. Although widespread, occurring in north, west and south Africa, Madagascar, India, Hawaii, Brazil, Jamaica, the plant may be considered rare except in certain limited areas where conditions for growth are the most favorable.

After a careful comparison of all specimens with abundant Colorado Desert collections, Miss Morse is inclined to believe that there is really only one