America indicate that the Tertiary genera and some species were much like those of the present; but the geographical distribution has in many cases shifted. Most remarkable is the occurrence in Greenland and Alaska, actually well within the Polar Circle, of fossils belonging to genera now found in warm temperate or even sub-tropical regions.

It is difficult to imagine any possible conditions of climate in which these plants could grow so near the Pole, deprived of sunlight for many months of the year. The occurrence of so many related species in the at present widely sundered southern continents can be explained only on the assumption of some former land connections. The theory of Continental drift has been proposed by several writers, notably the recent volume[1] of Dr. A. S. du Toit. du Toit is influenced by the work of Wegener, but differs from Wegener in assuming two primordial continents, a northern one, Laurasia, and a southern one, Gondwana, instead of Wegener's "Pangaea." From Gondwana were separated the four present southern continents, which finally drifted to their present locations. This theory would best explain most of the problems in the geographical distribution of the floras of the Southern Hemisphere.

DOUGLAS H. CAMPBELL

STANFORD UNIVERSITY

SCLEROTIUM BATATICOLA, A CAUSE OF DAMPING-OFF IN SEEDLING CONIFERS

Sclerotium bataticola Taub. was isolated from young Norway spruce seedlings by Dr. L. W. R. Jackson, pathologist at the Allegheny Forest Experiment Station, in 1935. He later turned over cultures of this fungus to the writer, who has found that it attacks the germinating seeds and early seedlings of Douglas fir (*Pseudotsuga taxifolia* Brit.), Norway spruce (*Picea Abies* (L.) Karst.), American larch (*Larix laracina* (DuRoi) Koch), and the following species of pine-jack (*Pinus Banksiana* Lamb.), red (*P. resinosa* L.), Scotch (*P. sylvestris* L.) and Western yellow (*P. ponderosa* Dougl.). The inoculation experiments were conducted in the laboratory and greenhouses at the Morris Arboretum of the University of Pennsylvania. Pre-emergence and post-emergence damping-off occurred in all species mentioned. *Sclerotium bataticola* was reisolated from all stages of damped-off seedlings.

Under the conditions of these preliminary experiments, the pathogenicity of *Sclerotium bataticola* was thus confirmed for the species of conifers mentioned.

SPENCER H. DAVIS, JR.

UNIVERSITY OF PENNSYLVANIA

[1] "Our Wandering Continents." London, 1937.

PHYSICS IN NAZI GERMANY

IN SCIENCE for November 1, there was published a letter from an unidentified correspondent in Russia, which seems to imply that the Nazi authorities in Germany condemn "theoretical physics" as "Jewish physics" because of its Jewish origin. Is it not far more likely that the present masters of Germany discredit those particular branches of theoretical physics which are commonly known as quantum theory and relativity because they do not find them useful, and call them Jewish to disparage the Jews?

We in America hate tyranny—whether it be tyranny of men or tyranny of ideas. We should accord abtruse theories respectful consideration if they are both honest and able attempts to account for observations not previously fully accounted for, but we should not permit them to tyrannize. Your correspondent, however, disparages Stork because "it is obvious that the author tries to refute the modern theory of quantum mechanics." Since when has this become an offense? Quantum theory has not been deified in America, and undoubtedly there are still "thirty thousand men in Israel" who have not bowed down before it. Endeavors to confirm the quantum theory are still made in abundance. Should the few who seek unification of science along other lines be disparaged as necessarily anti-Jewish?

The true status of these two branches of modern physics, so far as the general public is concerned, is about as follows: Even Mr. Einstein has not yet been able to reconcile relativity and quantum theory, though he has made the endeavor to do so almost a life work. There has been no derivation of the electromagnetic theory from the principles of quantum mechanics, although a reconciliation between the two was promised and has been hoped for. Even Bohr now says that quantum principles do not apply in nuclear physics.

Relativity has not been applied to any attempt to control phenomena. Quantum terminology has been adopted in spectroscopy, and is used in all spectral classification work, there being as yet no other. The "numerous remarkable discoveries" attributed to quantum theory are at least chiefly due to classification schemes, and not necessarily to the idea of monochromatic unidirectional radiation quanta produced by losses of energy by moving electrons. The electromagnetic theory, however, has been vastly extended in its usefulness.

There seems to be a need for search for modes of interpreting phenomena that are not bound *a priori* to any postulates that seem irreconcilable to what is too often referred to disparagingly as "classical theories."

Nazis may couple men and ideas for the purpose of