

an amphisporangiate strobilus, either simple or complex. That strobilus is in a measure visualized in Cycadeoidea. Maybe it is seen in Tumboa. In any case it was a forerunner of flower and cone.

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### THE SPECTRA OF GASES LIGHTED WITH STRONG ELECTRICAL DISCHARGES

THE spectrum of a gas is known to vary with the pressure and the type of electrical excitation. Experiments were undertaken to find out what the spectrum of the gas is like when very strong discharges are used. A small discharge tube containing the gas at pressures up to several cms of mercury was arranged to be excited either in the usual way by the discharge of a transformer, or by a small 0.002 microfarad condenser, or by the violent discharges of a 1 microfarad condenser charged to 15,000 volts. The discharge of a 1 microfarad condenser at this voltage is quite an energetic affair; it produces a blinding flash of light and a pulse of sound like a gunshot. With hydrogen in the tube the Balmer lines widened with increasing strength of the discharge, the higher members of the series disappeared and the continuous spectrum became more intense, until with the 1 microfarad condenser discharges there were no Balmer lines left at all, only the continuous spectrum and some absorption lines due to aluminum from the electrodes, etc. Helium, oxygen and nitrogen exhibited similar changes, *i.e.*, with increasing intensity of the discharge in helium the lines gave way to a continuous spectrum, and in oxygen and nitrogen the molecular bands gave way to spark lines and these in turn to a continuous spectrum. The continuous spectra from all the gases were closely alike. The intensity distribution across the continuous spectrum was rather even and probably not that of a black body.

The result of the experiments was in some respects a surprise, although to be sure as the experiments progressed one could see in what direction they were headed. That certain lines would widen or disappear in the intense discharges was to be expected, but to find all the lines wiped out and their places taken by a smooth continuous spectrum was hardly anticipated. It seems that the external characteristics of the atoms were pretty well effaced. One may imagine that the conditions approached those in the interior of a star.

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### SCIENTIFIC MINUTE MEN IN ANTHROPOLOGY AND ARCHEOLOGY

IN cooperation with the Division of Anthropology and Psychology of the National Research Council,

Science Service has arranged a plan by which competent and accurate reports of rumored discoveries relating to anthropology and archeology may be obtained for prompt publication in the press. The committee, appointed by the Division of Anthropology and Psychology, National Research Council, is as follows: Dr. Roland B. Dixon, Harvard University, Cambridge, Massachusetts; Dr. A. L. Kroeber, University of California, Berkeley, California; Dr. Leslie Spier, University of Washington, Seattle, Washington, and Mr. Neil M. Judd, chairman of the committee, U. S. National Museum, Washington, D. C. Dr. Fay-Cooper Cole, chairman of the division, has been helpful in formulating the plan.

The plan, briefly, is this. Selected anthropologists, geologists and paleontologists situated in geographically strategic localities are commissioned special correspondents of Science Service and authorized to visit and investigate any reported discoveries in their vicinity which may appear important or likely to receive wide publicity. Science Service guarantees to defray expenses up to \$50.00; more than this, by prior agreement. Specific authorization is not required but the collaborator uses judgment in determining what needs investigation and, to avoid duplication of effort, first ascertains that others near by are not also starting out on the same report.

Before starting on any specific investigation, each investigator states what is known of the reported discovery, his personal plans, telegraphic address, etc., in a concise telegram sent press rate collect to Science Service, Washington, D. C. He does not wait for an answer but proceeds immediately with the investigation. Upon arrival at the site, the results of preliminary investigation are telegraphed to Science Service. Details and photographs are sent as soon as possible by mail.

Investigations are restricted to reported discoveries that seem likely to be of real importance or that seem likely to create considerable publicity. Science Service, supplying science news to a fifth of the newspaper reading public in America, is desirous through this plan to distribute accurate and prompt news of all important archeological and anthropological investigations before exaggerated and misleading statements are circulated.

The investigator arranges with his institution to coordinate his efforts under this cooperative plan with his activities on behalf of his institution. The scientific results of any investigation may be published as the scientist sees fit, but news reports and public statements, in consideration of the participation of Science Service, are distributed exclusively through Science Service.

Sixty-six archeologists and anthropologists located