test the electrical conductivity of conductors in different orientations with respect to the earth's motion in space. True, all these experiments were performed at or near sea level; and in view of the difference in Professor Miller's results as between Cleveland and Mt. Wilson, it is certainly desirable that some or all of these other experiments should be performed at as great an altitude as possible; for no final conclusion in the matter can be reached until all the different lines of experiment give concordant results.

Of these other lines of experiment, the simplest and most practical would seem to be those of Rayleigh and of Brace (*Phil. Mag.*, December, 1902, p. 678; *ibid.*, vol. 7, 1904, p. 317). It ought to be possible to test this point with an apparatus compact enough to be carried up to a height in an airplane.

The Trouton-Noble experiment is still so uncertain in theory that we do not know exactly what to look for. (Kennard, *Bulletin* of the National Research Council, vol. 4, part 6, December, 1922, No. 24.) Its experimental prosecution may well be delayed until its theory is clear.

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THE DISAPPEARANCE OF HELIUM IN GEISSLER TUBES

THE recent comment by S. C. Lind and D. C. Bardwell in the March 27 number of SCIENCE, entitled "Mercury and Ionized Helium," in which experiments are described which appear to show that helium and mercury do not interact as a result of alpha particle bombardment, suggests our calling attention to some interesting phenomena associated with the disappearance of helium in Geissler tube discharges which produce the spectra of the first negative Deslandres group of carbon, and the so-called comet-tail bands.

Using tubes of the Wood type of four millimeters bore with pressures of twenty millimeters of helium and a small partial pressure of 10^{-4} mm of residual compounds of carbon from activated charcoal, on several occasions during energetic excitation of the above mentioned spectra, together with the brighter lines of helium, the latter has been observed entirely to disappear. The tube changes in color from pink to blue, and the Ängstrom bands and triplet band system, described by Merton and Johnson, are developed. The disappearance of helium in its usual form under these conditions is inferred from the complete disappearance of its spectrum and a marked reduction of gas pressure within the tube, as exhibited by the length of the dark space.

Conditions hardly permit of the hypothesis of occlusion in the ordinary sense, since subsequent baking the tube to the softening point of pyrex glass does not recover the helium spectrum. Neither can one ascribe the phenomenon to diffusion through the glass walls, since the tube is not heated much above 50° C. by the discharge which causes the extinction of the helium spectrum. One is reminded of some early work of Berthelot, *Ann. Chem. Phys.* (VII), 11, p. 219, 1897, on the apparent disappearance of helium when associated with carbon compounds.

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THE CLASSIFIED CONTINUATION CARD CATALOGUE OF THE BIBLIOGRAPHY OF FISHES

IN the *Anatomical Record* of December 25, 1924, Vol. 29, pp. 128–129, I published under the above title a preliminary abstract of a paper which I read on January 1, 1925, before a joint meeting of the American Society of Zoologists and the American Ecological Society. The purpose in publishing this abstract and in reading this paper was to give notice that the "Bibliography of Fishes" is being kept up to date, to ask "fish men" to send in their articles for immediate carding and to ask all interested in any subject wherein fishes touch the life of man to come to the American Museum to get their references brought as near to the actual date as is humanly possible. In order to secure the widest possible notification of this purpose to scientific men in America I am publishing in SCIENCE this note on the plans and work now under way.

A large number of the letters and reviews received since the publication of the "Bibliography of Fishes" have expressed the strong hope that the bibliography, which includes the literature to and ending with 1914, might be continued. My own feeling is that having learned how to do bibliographical work, I owe it to science in general and to ichthyology in particular to keep the "Bibliography of Fishes" up to date in the form of a classified card catalogue. For a year and a half this work has been carried on in tentative fashion and it has been demonstrated that it can be done without any outside assistance and without any outside expense to the museum—*i.e.*, it is being done as a part of the regular routine work of the department.

The sources of additional reference for the "Bibliography of Fishes" are primarily those papers which have appeared since the close of the bibliography (1914). These references come in to us in three separate ways: First, in the current bibliographies which generally appear about two years later than the literature which they record. Of these the "Zoological Record" has been checked up to date, and I plan shortly to begin on the "Archiv für Naturgeschichte." When that is done the continuation (post 1914) of the "Royal Society Catalogue," the "Concilium Bibliographicum" and other like annual works will all be