tity in a twelve-hour hydrolysate as in a forty-eight-hour hydrolysate, but there is no question but that a part of the tryptophane nitrogen would be in this fraction.

It is of interest to note that McHargue obtained no "insoluble humin" for the twelve-hour hydrolysate of casein to which no carbohydrate had been added, and that his "histidine" fraction is in excess of that reported by other analysts. This observation accords beautifully with the idea of Gortner and Holm[6] that an aldehyde or ketone must be present to cause insoluble humin formation from tryptophane and that when insufficient aldehyde is present and the hydrolysis is not sufficiently prolonged the tryptophane will be (in part) precipitated by phosphotungstic acid and augment the "histidine" fraction [cf. Gortner and Holm[4]].

However, all of this discussion, pertinent as it may be, would be trivial were it not for the fact that other workers may be led to accept McHargue's conclusions and thus cause a further waste of money and energy in pursuing an illusive will-o'-the-wisp.

In the introduction to his paper McHargue seems to argue that Van Slyke's method may be applied directly to feeding stuffs without necessarily securing inaccurate results. Even if we should grant that the presence of carbohydrates *per se* did not vitiate the results, and all available evidence is contrary to such a conclusion, there would still remain other forms of nitrogen than proteins in the feeding stuffs which must necessarily appear in the various fractions and be wrongly calculated as amino acids. For example, Steenbock[7] reports the presence of stachydrin in alfalfa and this substance would be calculated as "histidine" in a Van Slyke analysis. I have elsewhere[2] fully discussed this point and therefore have no hesitation in making the following statements: (1) Proteins can not be hydrolyzed with 20 per cent. hydrochloric acid at atmospheric pressure in the presence of a considerable quanity of carbohydrates without appreciably altering certain of the nitrogen fractions of a Van Slyke analysis, and (2) a Van Slyke analysis applied to feeding stuffs, containing as they do non-protein nitrogenous compounds, gives no valid index as to the presence or absence of any individual amino-acid.

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[7] H. Steenbock, *Sci. Proc. Soc. Biol. Chem.*, XXVII., 1916; *J. Biol. Chem.*, Vol. 29 (1917).

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AT a meeting held on May 20 Professor Francis E. Nipher stated that he had been making observations on local variations in the electrical potential of the earth, due to local thunderstorms. The large masses in the Cavendish apparatus are connected with a wire passing through a window in the second story of the physics building to the earth. The wire is in contact with wet grass in the yard below, and with metal rods which are pushed down into wet ground to a depth of about 15 inches. The lightning rod which grounds a high metal tower on the building, which was formerly used for wireless telegraphy, has been broken near the earth, and a gap of about two inches has been made in the rod. This rod can at any time be put in metallic contact with the large masses, by means of a knife switch. On several occasions during storms, sudden changes in the attraction of the large masses upon the suspended masses within the metallic shield have occurred, which it seems impossible to explain except as due to enormous changes in the potential of the large masses, due to local changes in the electrical potential of the earth. Previous results show that this would change the gravitational attraction between the masses.

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