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. McHargue and Holm^6].

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 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 quantity of carbohydrates without appreciably altering certain of the nitrogen frac-

![Image](https://via.placeholder.com/150)

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