

[54] **7S AND 11S VEGETABLE PROTEIN
FRACTIONATION AND ISOLATION**

[75] **Inventors:** Paulette A. Howard; William F. Lehnhardt; Frank T. Orthoefer, all of Decatur, Ill.

[73] **Assignee:** A. E. Staley Manufacturing Company, Decatur, Ill.

[21] **Appl. No.:** 291,670

[22] **Filed:** Aug. 10, 1981

[51] **Int. Cl.³** A23J 1/14

[52] **U.S. Cl.** 260/123.5; 260/112 R; 426/629; 426/634; 426/656

[58] **Field of Search** 260/112 R, 123.5

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,131,607 12/1978 Petit et al. 260/123.5

OTHER PUBLICATIONS

Cereal Chemistry, vol. XXV, Nos. 1-6, Jan.-Nov. (1948), Smith et al., pp. 399-406.

Primary Examiner—Howard E. Schain
Attorney, Agent, or Firm—M. Paul Hendrickson; Charles J. Meyerson

[57] **ABSTRACT**

Aqueous mixtures of water-soluble 7S and 11S proteins are effectively fractionated and isolated by precipitating the 11S protein at a pH 5.8-6.3 in the presence of carefully controlled concentrations of water-soluble salts and sulfurous ions. The enriched 7S whey may then be adjusted to a pH 5.3-5.8 to precipitate substantially all of the remaining water-soluble 11S protein from the whey and an enriched 7S fraction may then be recovered from the whey. The fractionation is capable of producing either 11S or 7S isolates which respectively contain less than 5% 7S or 11S protein impurities.

13 Claims, No Drawings