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(71) Applicants: ABBOTT LABORATORIES [US/US];
Dept. 377/AP6A-1, 100 Abbott Park Road, Abbott Park,
IL 60064 (US). ABBOTT GMBH & CO. KG [DE/DE];
Knollstrasse, 67061 Ludwigshafen (DE).

(72) Inventors: MAZER, Terrence; 7032 Cunningham Drive,
New Albany, OH 43054 (US). KESSLER, Thomas; Mut-
terstadter Str. 113, 67105 Schifferstadt (DE).

(74) Agents: ENGLE, Mark, R. et al.; Abbott Nutrition a Divi-
sion of, Abbott Laboratories, 3300 Stelzer Road, Dept
108140 RP3-2, Columbus, OH 43219 (US).

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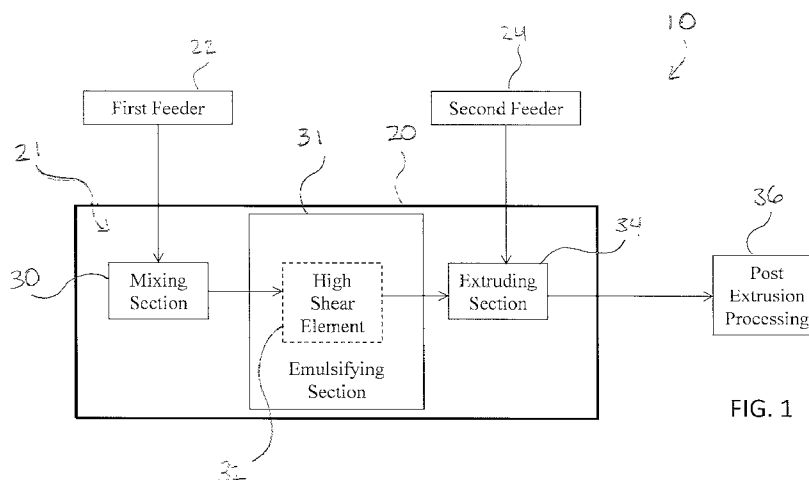


FIG. 1

(57) Abstract: A method of producing an emulsion and an extrudate for a powdered nutritional product is provided. The method includes utilizing an extruder (10) that contains a high shear element (32) positioned within the barrel of the extruder (20). The use of a high shear element (32) positioned within the barrel of the extruder (20) allows both emulsification and extrusion of the ingredients to occur within the barrel of the extruder (20). A first portion of ingredients comprising a slurry is processed by the high shear element (32) to form an emulsion. The emulsion is then combined with a second portion of ingredients and extruded to form an extrudate for the desired powdered nutritional product. In some embodiments, the high shear element (32) may comprise a shearing disc or a pair of shearing discs. The extruder (10) may comprise a single screw extruder, a twin screw extruder, or any other suitable type of extruder.