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(71) Applicant: THE MEAD CORPORATION [US/US]; Court-house Plaza, Northeast, Dayton, OH 45463 (US).			
(72) Inventors: SPAMER, William, S.; 2320 Roxburgh Drive, Roswell, GA 30076 (US). SUTTLES, J., Marshall; Route 2, Box 8, Elberton, GA (US). PARHAM, Dennis, E.; 2509 Hollins Drive, Kennesaw, GA 30144 (US). WHITEN, James, Douglas; 2152 Hartwood Drive, Kennesaw, GA 30144 (US).			
(74) Agents: SUZUKI, Tsugihiko et al.; The Mead Corporation, 4850D North Church Lane, Smyrna, GA 30080 (US).			

(54) Title: GRAVITY FEED BOTTLE DISPENSING DEVICE HAVING A TRACK-BLOCKING GATE MECHANISM

(57) Abstract

A bottle dispenser has a gate mechanism (62) to maintain the foremost one of the track-supported bottles (B1, B2, B3) substantially vertical. The dispenser includes an elongate track (24, 25, 88, 90) which defines a longitudinally extending pathway, a support assembly (26, 28) for the track (24, 25, 88, 90), and a stopper (54, 106) provided at the front end of the track. The track supports a row of flanged bottles (B1, B2, B3) such that the bottles are suspended by their neck flanges (F) for movement along the pathway and removable from the pathway through the front end of the track. The support assembly supports the track such that the track is inclined toward its front end whereby the suspended bottles (B1, B2, B3) are allowed to gravity feed toward the front end when the leading bottle (B1) in the row is removed from the track. The stopper (54, 106) engages with the leading bottle (B1) to prevent its accidental removal through the front end. The gate mechanism (62) blocks the pathway at a position between the front and rear ends of the track. The mechanism (62) is activated when the foremost bottle (B1) in the row engages the stopper (54, 106) so that forward movement of the other bottles (B2, B3) behind the foremost bottle (B1) is blocked. This allows the foremost bottle (B1) to be free of pressure of the other bottles (B2, B3) when stopped at the front end of the track (24, 25, 88, 90).

