

(57) Abrégé(suite)/Abstract(continued):

region. A ball and seat may be positioned in the valve cage. During pumping operations, the cradle retains the ball when the ball is unseated, thereby allowing fluid to pass freely through channels in the insert and around the ball. This eliminates violent action of the ball, thereby obviating a need for a hard liner to be included in the valve cage. A port in the cradle allows fluid to pass therethrough when the ball has been released from the cradle. The angular configuration of the ribs provides for a more laminar flow of fluid compared with prior art valve cages, thereby providing improved passage of fluid through the valve cage. The base may include an angled hook or lip that creates a tight seal, thereby preventing fluid from washing by during pumping operations. During pumping operations, when the ball is released from the cradle, it is guided by the insert and falls straight downward onto the seat, allowing for faster seating of the ball, and in turn, reducing pump stroke loss and providing for more efficient pumping. The valve cage may be configured for a traveling valve or standing valve portion of a subsurface pump or the like.

