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(54) **SURFACE GRAVITY WAVE GENERATOR AND WAVE POOL**

(75) Inventors: **Kelly Slater**, Los Angeles, CA (US); **Adam Fincham**, Los Angeles, CA (US)

(73) Assignee: **Kelly Slater Wave Company, LLC**, Los Angeles, CA (US)

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(52) **U.S. Cl.**
USPC **405/79**; 4/491; 472/128

(58) **Field of Classification Search**
USPC 405/52, 79; 4/491; 472/128
See application file for complete search history.

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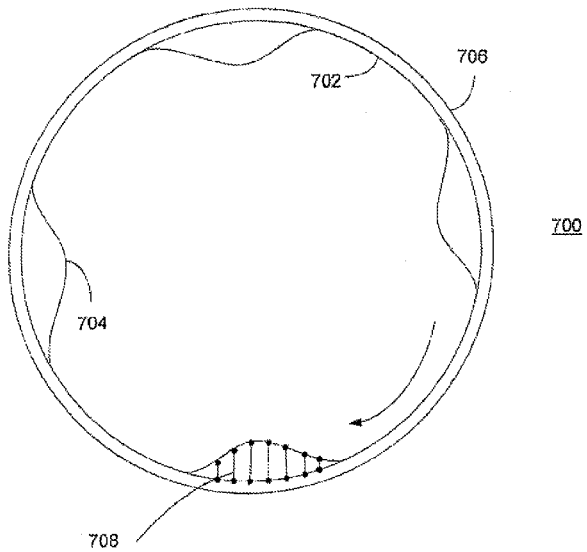
Primary Examiner — Tara M. Pinnock
(74) *Attorney, Agent, or Firm* — Mintz Levin Cohn Ferris Glovsky and Popeo, P.C.

(57) **ABSTRACT**

A surface gravity wave generator and wave pool is disclosed. A wave pool is formed of opposing side walls and a center channel of water. The channel includes a bottom contour with a depth that runs from a deep end to a shoal or beach. One or more three-dimensional foils are vertically arranged along at least one side wall, and moved against the water in the channel. Each foil has a curvilinear cross-sectional geometry that defines a leading surface that is adapted to generate a wave in water moving past the leading surface, and a trailing surface configured for flow recovery to avoid separation of the flow of water in the wave and to mitigate drag from the foil from the water moving past the leading surface.

15 Claims, 7 Drawing Sheets