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(72) Inventors; and

(71) Applicants : CHIN, Howard, M. [JM/JM]; 14 Bracknell Avenue, Kingston, 6 (JM). CARRAHA, Kimberly, A. [US/US]; 1505 Harbourside Drive, Weston, FL 33326 (US).

(74) Agent: HOCHBERG, Peter, D.; D. Peter Hochberg Co., L.P.A., 1940 East 6th Street, 6th Floor, Cleveland, OH 44114 (US).

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(54) Title: ROCKET LAUNCH SYSTEM AND SUPPORTING APPARATUS

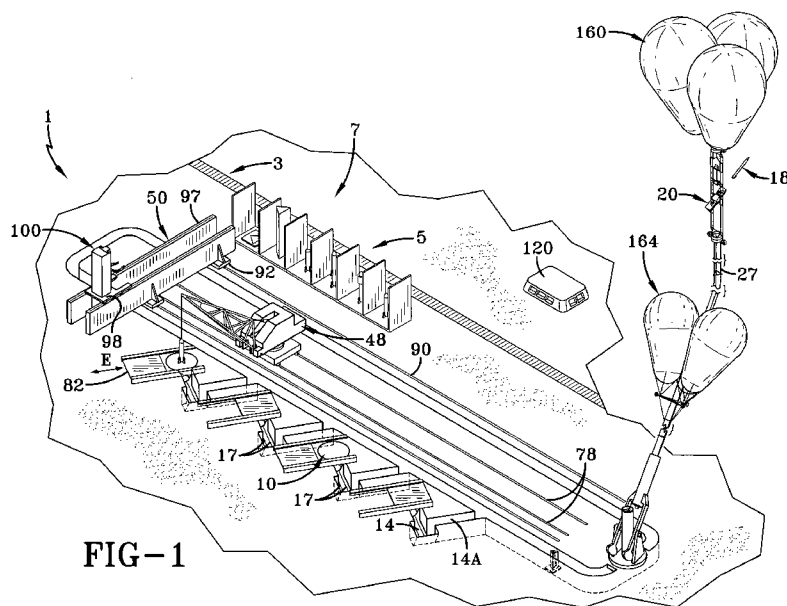


FIG-1

(57) Abstract: A rocket launch system (1) includes a tubular rocket launcher carriage (2) with electromotive cableway traction drives (26) conveyed beneath a two axis pivot (63) anchored to the earth, elevated into a co-axial transfer tube (124, 143) leading to three primary tether cables (27) whose weight is offset by balloons (164). The carriage is conveyed to a docking station (166) supported into the stratosphere by a pair of secondary cables (184) suspended under an attachment frame (162) for tensioning balloons. The carriage is engaged by a carriage end gripper (196) guided by two secondary and two tertiary cables (186) and lifted by a lower hoist (198) guided by the secondary cables. This lower hoist is supported by an upper hoist (168) suspended from the tensioning balloons attachment frame. The carriage, which engages a lift ring (183) guided by two secondary cables, is elevated further, rotated as desired, with rocket release and nearly recoilless ejection during freefall of the carriage, with engine ignition occurring at a safe distance.



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