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(72) Inventor; and

(71) Applicant: **GEHLOT, Ashok** [IN/IN]; H No 1 (khasra-189), Ankur Enclave, Near Gayatri Nagar, Pal Road, Jodhpur 342008, (rajasthan) (IN).

(74) Agent: **HIREN THAKKAR & ASSOCIATES**; 603B Central Business Space, Opp. Fortune Landmark Hotel, Nr. Parth, Residency, Usmanpura, Ahmedabad 380013, Gujarat, (IN).

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(54) Title: A NOVEL PASSIVE SURGE WATER HAMMER PROTECTION SYSTEM

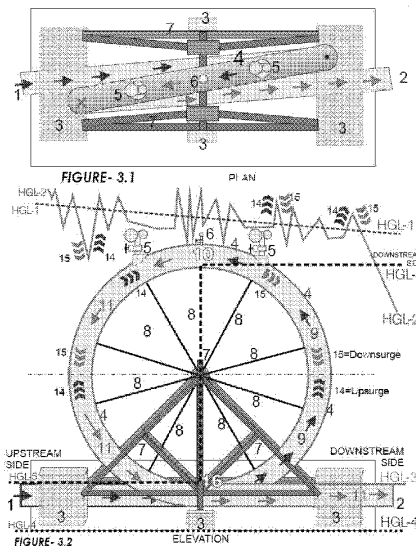


Fig.3

(57) Abstract: A novel passive surge water hammer protection system, which is useful for Automated Surge Water-Hammer Transients control, protection and for preventing water hammer transients from occurring in a water pipeline & pumping plant. The present SCT invention creates two differential HGLs at same junction / node, Upstream level at (16) and Downstream level at (10) inside the circular vertical loop (4) = (1,16,9,10,11,2) an unequal column separation, vertical differential (16,10) is developed, this simple passive method to force the minimum negative pressure from below the pipe invert level to minimum positive pressure (16,10) which is well above the pipe invert level (HGL-3).

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