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(12) United States Patent Park

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(54)	VORTEX SEPARATOR FOR SEPARATING
	FLOATING AND SETTLING SUBSTANCES
	FROM CENTRALLY INFLOWING
	STORM-WATER

(76) Inventor: No Yeon Park, 226-502, Jugong Apt.,

Dunchon-dong Gangdong-gu, Seoul

(KR) 134-772

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Primary Examiner—Christopher Upton (74) Attorney, Agent, or Firm—Sherr & Vaughn, PLLC

(57) ABSTRACT

Disclosed herein is a vortex separator for separating floating and settling substances from storm-water. The vortex separator of the present invention can separate fine settling substances as well as coarse settling substances, floating substances and oil from storm-water. To achieve the above purpose, the vortex separator of the present invention includes a separation casing, a guide plate, which is provided in the separation casing and supported by a connection plate, and an inlet pipe, which is coupled to the guide plate and extends outside the separation casing, so that the storm-water is drawn into the guide plate through the inlet pipe. The vortex separator further includes a perforated inclined skirt, which is provided below the guide plate to guide the settling substances onto a bottom of a sediment storage chamber and prevent the settling substances from being resuspended, and an outlet pipe, which is coupled to the separation casing at a position below the connection plate and extending outside the separation casing, so that the storm-water is discharged through the outlet pipe.

7 Claims, 9 Drawing Sheets

