

Representative Patent 02

- ❖ Title of Invention : **Spraying system using fixed wing aircraft and control method of the spraying system**
- ❖ Application Number. : KR2019-0163873

Application of Technology and Field of Use

◆ Wildfire suppression, Pesticide spraying

◆ Difficulty in using rotorcraft when suppressing wildfire

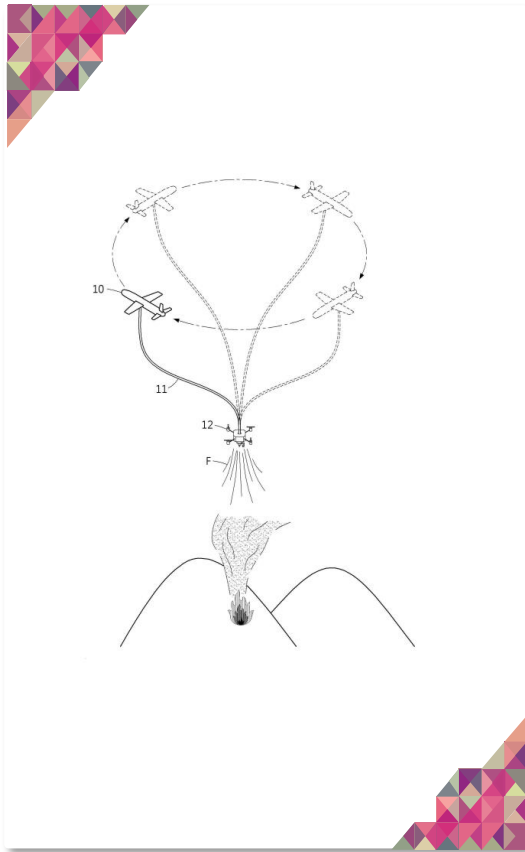
- The possibility of safety accidents is high because work must be performed in a smoky environment.
- Operation is restricted at night or in strong winds.

◆ Low efficiency of wildfire suppression when using fixed-wing aircraft

- Spraying water from a high altitude reduces the accuracy of spraying on a target point.

Features of Technology

- A fixed-wing aircraft
- A fluid pipe connected to the fixed-wing aircraft and configured to provide a passage through which a fluid supplied from the fixed-wing aircraft can move
- A rotorcraft connected to the fluid pipe and configured to fly in place



<Representative drawing>

Forestry/Wildfire

Representative Patent 02

Technical Effects

◆ Possible to precisely spray fluid to target place

- By ejecting the fluid in the air by the rotorcraft connected to the fluid pipe of the fixed-wing aircraft, it is possible to reduce the possibility of water scattering by the wind and precisely spray the fluid to the problem area.

◆ Possible to quickly respond if fluid pipe is caught

- In case of emergency such as when the fluid pipe and the rotorcraft are caught in the terrain, the fluid pipe can be quickly separated from the fixed-wing aircraft so as not to interfere with the flight of the fixed-wing aircraft.

Social, Environmental, Economical Effects



<Firefighting aircraft suppressing wildfire at the site>

◆ Possible to quickly suppress wildfire in wide range of area

- Since the fluid is sprayed from a relatively low height, it is possible to precisely spray the fire-fighting fluid to the fire area in case of a wildfire.

◆ Available in agricultural fields such as pesticide application and fertilizer spraying

- It can be used in the agricultural field where the operation of spraying a fluid over a large area is required.