

FLYING INSTALLATION FOR ATTRACTING AND CAPTURING HARMFUL INSECTS

PATENT: MD 1554 Z, 2022.03.31

AUTHORS: GORBAN Victor, TODIRAȘ Vladimir, VOINEAC Vasile.

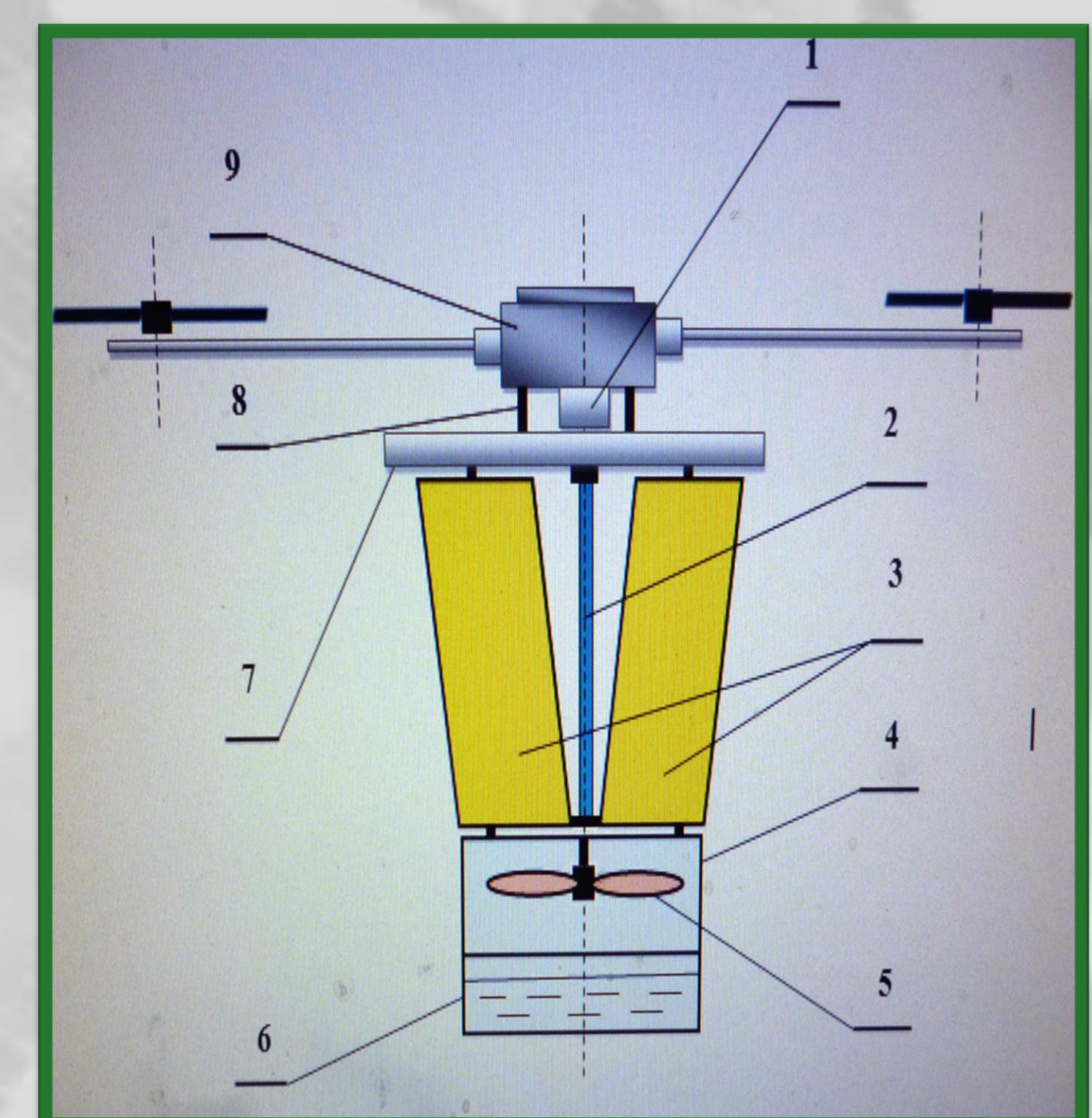
APPLICATION FIELDS: Agriculture

AIM: The invention relates to agriculture, in particular to mobile installations for capturing harmful insects and reducing their population density.

SOLUTION : The novelty of the claimed proposal is due to the fact that, in order to reduce pest density and increase the efficiency of attracting and exterminating harmful insects, the device with optical radiation source is equipped with half-cylinder reflector screens, suction collector with suction device and detachable from insects. At the same time, the installation, being suspended on a means of transport, such as the small unmanned aerial vehicle of the multicopter type, ensures the operability of carrying out protection measures at the respective level of crop height and insect flight height. The movement of the installation above the protected lot on a route programmed at a certain height and with a certain speed, ensures the observance of its working regime, taking into account the range of the light source and the activity of the insects during the day.

The invention relates to agriculture, in particular to mobile installations for capturing harmful insects and reducing their population density.

The flying installation for attracting and capturing harmful insects contains a housing (7), in the upper part of which is fixed by means of a suspension frame (8) a multicopter (9) with an electric power source (1), to which is connected an ultraviolet radiation source (2). On the sides of the ultraviolet radiation source (2) are placed reflecting screens (3) with glue, which are in communication with an insect collector (4), equipped with a suction device (5) and a removable insect receiver (6).



Scheme principle flying installation for attracting and capturing harmful insects

ADVANTAGES: The technical advantage of the claimed proposal is that the installation is suspended on a means of transport such as a small unmanned aerial vehicle, which ensures the operability of protection measures at the level of crop height and insect flight height, as well as due to the use of the optical radiation source and the insect collector with suction device, the collection and full extermination of insects harmful to agricultural crops is obtained. The operational and safe extraction and extermination of perennial and field crops pests with the help of the proposed facility will significantly restrict the use of harmful preparations.

IMPLEMENTATION STAGE : To the experimental fields

The research was supported by the research project: "Strengthening the capabilities of forecasting and combating harmful organisms and phytosanitary risk analysis in integrated plant protection"

No20.80009.5107.19