

SEMI-AUTOMATED SQUALOR HEN HOUSE CLEANER MACHINE

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ABSTRACT

Livestock business is now getting more valued globally. For the improvement of business, people depend on technology to get things done faster and easier. Notwithstanding, chicken farming expands these days hence, its poultry farm should be kept clean and orderly to ensure health and protection of the owners, customers, and neighborhood. The lack of manpower limits the use of machinery in farm to complete various tasks. So, the proponents developed the Semi-automated Squalor Hen House Cleaner Machine using locally available materials wherein solidification of its dung is an inclusion to its automation. More so, it generates a quarter of the dirt/musk that the chickens expel and is made up of various circulations that are used to clean the whole poultry. Thus, it reduces the amount of manpower and time required to collect poultry waste as well as it establishes livelihood and environmental protection, too. Different tools and equipment, such as a single-phase AC motor and thermostat, were used to make the unit efficient. The use of a magnetic contactor stabilized the machine's capability by controlling the systematic flow of electricity to it. Through various testing and evaluation, the Squalor Hen House Cleaner was found advantageous and efficient in terms of functionality, durability, maintainability, and safety. It is made of steel, difficult to bend or break and it is safe to use. To guide the intended users, the activity manual was developed that serves as a reference for its secured operation. Henceforward, the proponents recommended the following for its enhancement: extend the conveyor according to the scale of the poultry farm, to add a solar panel to provide more power in the event of a power outage and enhance the machine by adding a hose to the tank that absorbs the odor of the chicken dung which can be used as biogas.

Keywords: Hen-house cleaner, automation, machine, cleaning process,