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WEED REMOVING MACHINE FOR AGRICULTURE

Albert Francis A*, Aravindh R, Ajith M, Barath Kumar M
* UG Students, Department of Mechanical Engineering, K.Ramakrishnan College of Engineering, Tiruchirappalli, Tamilnadu, India-621112

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ABSTRACT

The effective design of weed removing machine is to minimize the time taken for removing weed present between the growing plants.The vertical adjustment is to increase and decrease the height of the secondary rotating shaft and the rotary blades.It is mainly focused to increase the growth rate of plants.The horizontal distance can be adjusted by increasing the distance between the individual blades of the machine.The blades are rotated in clockwise direction with respect to the weed elimination.The depth of the removal is controlled by the handle.The power is transmitted from engine to the primary shaft.The primary shaft is connected to secondary shaft.The cam shape of shaft is to transmit the power to the blade by using chain drive.The specification of design is the number of blades, which can be increased and decreased with respect to our requirement.The compact design is very helpful for in the field of agriculture.

KEYWORDS: cam shape,primary and secondary shaft,diesel engine,rotary blades,vertical and horizontal adjustment.

INTRODUCTION

Agriculture is most important in our life and nation.So that there are various farm machines available in every countries.The individual plants are specialized in surroundings and soil classification.The productivity can be improved by using hybrid seeds and artificial fertilizers.Agriculture mainly depends on weather condition,water resource,seeds and fertilizers.The weather condition cant be controlled by any external sources.The climatic conditions also reduces the water level due to evaporation.The above causes cant be controlled.But the selection of the seed and fertilizer can be controlled.After the cultivation process seeds are placed under the soil.The growth of the plants is done by applying water and fertilizer.The weeds are grown automatically by absorbing some amount of water,fertilizers.The initial cultivation is done by the advanced machines and the final cultivation of productivity is done by the machines.There are many innovations introduced in various machines for agriculture.

LITERATURE REVIEW

In this present day elimination of weeds in agricultural uncultivated land is done by various machines, which are available.But there is no special machine for eliminate the weeds in cultivated agricultural lands.The weeds reduces the growth of plants and productivity.The existing machines for cultivate the land by using the source of fuel .The previous design of machines consumes maximum amount of fuel.It can be reduced that various innovators are designing the solar powered machines.But it cant work for long time.The climatic conditions also affects the performance.

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Fig 2.1

Fig 2.2

The battery operated cultivated machines are not preferable after the discharge of the battery.The initial and final stages can be easily performed with special machines.But the intermediate distance preparation and production process does not fixed with any machines.The problem can be reduced in our design of weed removing machine,it fulfills the demerits of existing methods.After the complete growth of plants they can be easily collected by an artificial machines.The existing huge size weed remover machines affects the plant between the intermediate rotation.

Fig 2.3

Fig 2.4

OBJECTIVE

To prepare a weed removing machine for agricultural land and to reduce the human effort of weed elimination and to create a machine for low cost.To save the time of farmers and increase the productivity of food varieties.To prepare a portable machine including number of blades,and simple in size.

DESIGN

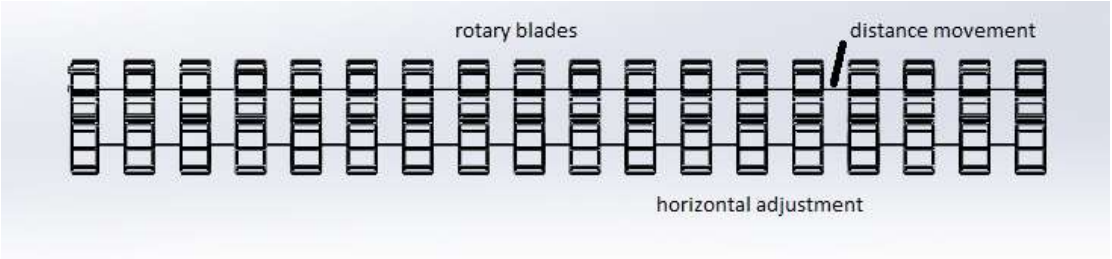

Fig 4.1

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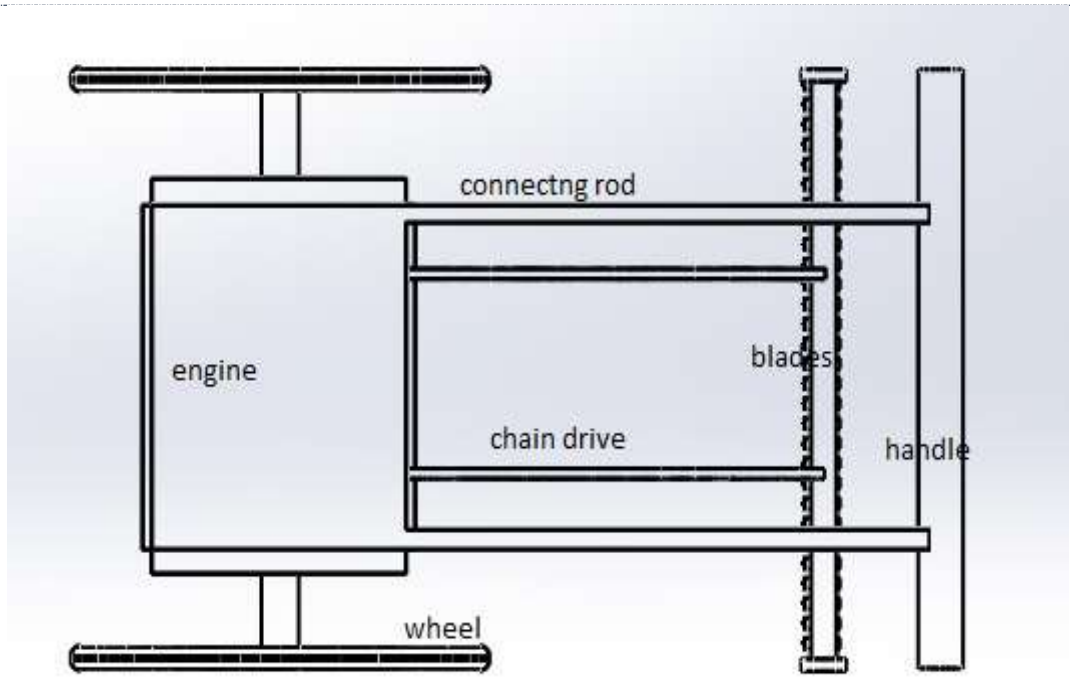

Fig 4.2

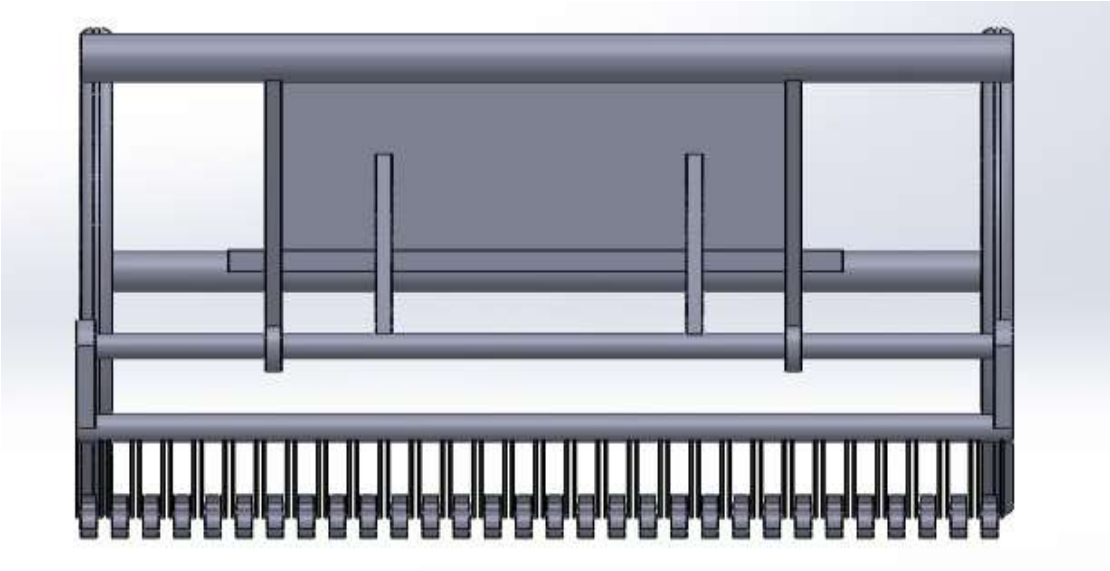

Fig 4.3

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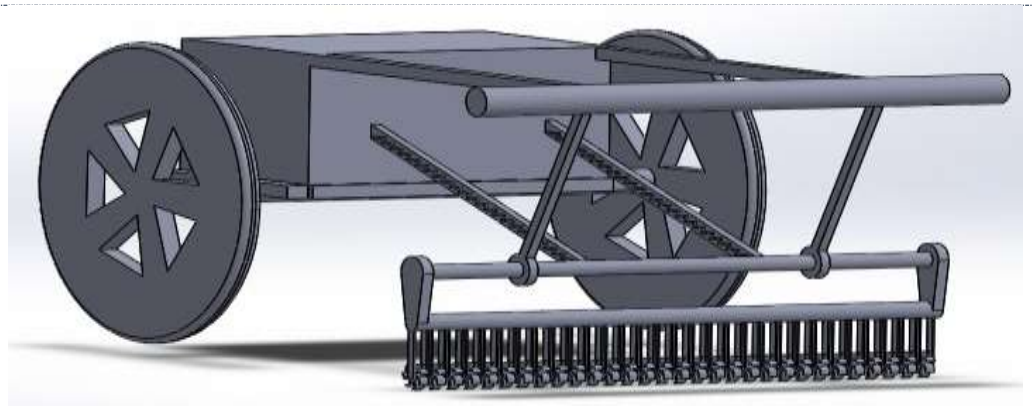

Fig 4.4

WORKING

The previous problem of agriculture weeds are that they cant be easily eliminated in the cultivated lands.Because there is no special machines available in the field.The weed elimination is done by human effort.It can be reduced in our design of machine , It will minimize the human effort at low cost.The design of distance between the two wheels are adjustable with respect to our requirements.The horizontal adjustments are mainly provided for placing the blades in certain distance with one another.The blade distance mainly depends on plant size and age.The top of the wheel shaft a diesel engine is provided for rotating the blades.The distance can be adjustable but the engine is fixed at that same point of contact.The selection of diesel engine is only for load purpose.Because the rotary blades are rotated with respect to given power and speed. The soil level also decides the speed of the machine.The engine power is directly connected to the primary shaft and the primary shaft is connected to the secondary shaft.The secondary shaft is coupled with the cam shape shaft and the cam shape edges are connected with the blades.The rotary motion of cam shape shaft is transmitted to blades by using chain drives.The handles are provided for turning the direction of the machine.The forward direction movement of the machine is done on the wheel shaft is connected to the engine.The blades are rotated in clockwise direction and the weed is removed perfect to near the plant.In the design totally minimize the time of weed elimination in the field of agriculture.The small thickness of the wheels can be rotated at any plants between the cultivated lands and it is not affected the plants.

Brief description of the drawing

Fig 2.1 and 2.2 represent the image of weed and its manually removing process.
Fig 2.3 and 2.4 denotes the weed removing by using machines.
Fig 4.1 intimate the horizontal adjustment blades.
Fig 4.2 top view of the machine.
Fig 4.3 side view of the machine.
Fig 4.4 isometric view of the machine.

CONCLUSION

The design of machine is for easily eliminating the weeds in the cultivated lands.The weed elimination also increases the productivity of the food sources.The time is saved by the farmers by the usage of our design.In the cultivation, preparation, spraying and sources of food collecting in all the process can be done on the various machines. Similarly by using the machine design can eliminate intermediate unwanted plants between the growth of plants.

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