Desing And Fabrication Of Pedal Operated Pulses Peeling Machine

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Abstract- *In this Pedal operated pulses peeling applications and Household needs in which no specific input energy or power is needed. This project consists of a crank and slider mechanism. In the mechanism pedal is directly connected to the connecting rod through crank and slider mechanism for the processing of peeling of pulses as well as cereals. The objective of the modal is using the conventional mechanical process which plays a vital role. The pulses peeling machine, which runs on human power, works on the principle of the conversion of rotational motion to oscillatory motion. Importance of this project lies in the very fact that it is green project and helps us to reduce our electricity need. Moreover, if we want we can generate electricity with our project by connecting it to dynamo, diode and battery.*

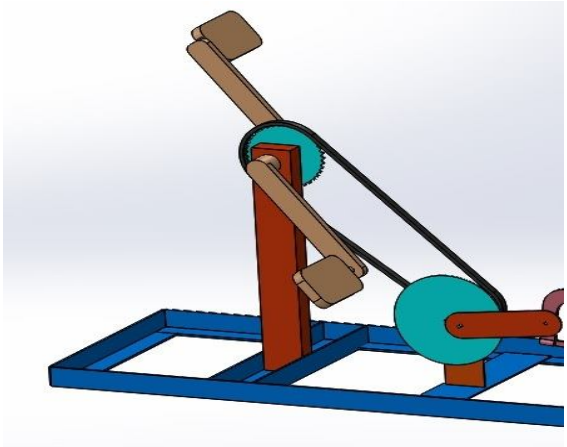
I. INTRODUCTION

Pedal power is the transfer of energy from a human source through the use of a foot pedal and crank system. This technology is most commonly used for transportation and has been used to propel bicycles for over a hundred years. Less commonly pedal power is used to power agricultural and hand tools and even to generate electricity. Some applications include pedal powered laptops, pedal powered grinders and pedal powered water wells. Some third world development projects currently transform used bicycles into pedal powered tools for sustainable development. This project concentrates on pedal operated pulses peeling machining. An individual can generate four times more power (1/4 HP) by pedaling than by hand-cranking. At the rate of ¼ HP, continuous pedaling can be served for only short periods, approximately 10 minutes. However, pedaling at half this power (1/8 HP) can be sustained for close to 60 minutes but power capability can depend upon age . As a consequence of the brainstorming exercise, it was apparent that the primary function of pedal power one specific product was particularly useful: the bicycle.

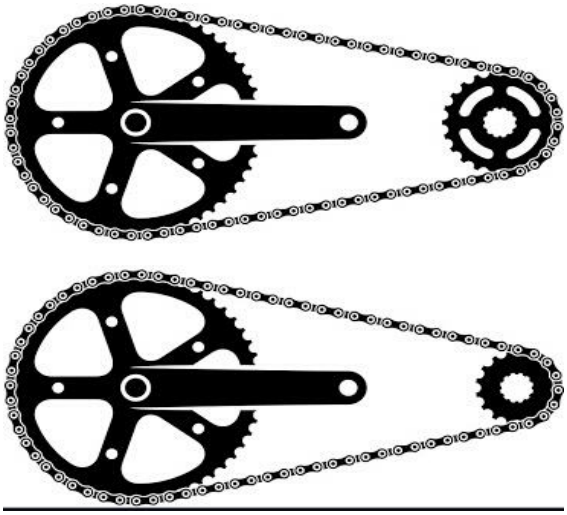
II. WORKING

Bicycle power is also a product of your speed and all of the forces that resist forward motion. Forces like aerodynamic resistance or wind, gravitational resistance or the grade of a given hill, rolling resistance or the quality and pressure in your tires, and the resistance in moving parts like your chain or bearings all impact your power. Pedal power meter uses the amount of force applied to each pedal to measure power. The direction and magnitude of the applied force is then analysed in real-time to determine which portion of that force is directed to drive the bike forward. Pedal power is the transfer of energy from a human source through the use of a foot pedal and crank system. This technology is most commonly used for transportation and has been used to propel bicycles for over a hundred years. Less commonly pedal power is used to power agricultural and hand tools and even to generate electricity. Some applications include pedal powered laptops, pedal powered grinders and pedal powered water wells. Some third world development projects currently transform used bicycles into pedal powered tools for sustainable development. The articles on this page are about the many wonderful applications for pedal power technology.

PEDAL MECHANISM

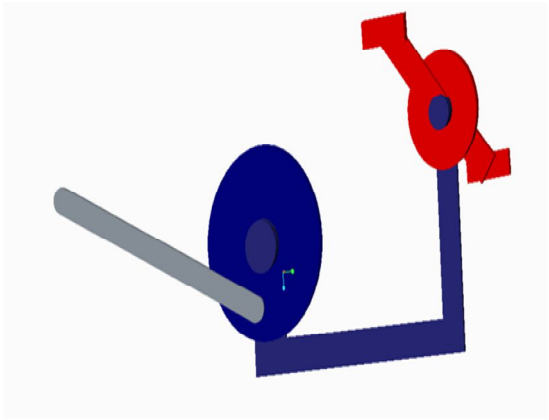


CHAIN AND SPROCKET



III. NEED OF MACHINE

[1] Agriculture is known as back bone of india but now days this backbone looks like suffering from spondylitis, that means our forming is depicting day by day for this reason we made this machine for supporting indian formers.
[2] Polished pulses available in market are mostly goes through the process of oil spreading and harmful chemical which are injurious to health therefore for getting healthy pulses we made this machine of pulses peeling.
[3] Polishing of pulses add extra cost for formers which we tried to eliminate.
[4] Polishing pulses are of high cost and companies which are selling unpolished pulses are also charged more for avoiding this we have made this machine at low cost.
[5] As machine is pedal operated this also helps to do exercise at home and we can also maintain good quality.



IV. LITERATURE REVIEW

- As the machine is pedal operated, it requires less efforts to trim the coconut.
- Machine is fully manually operated using bicycle chain sprocket mechanism.
- The machine is portable it can be setup anywhere.
- As the machine does not require electric power supply, this machine is eco-friendly.

V. CONCLUSION

The machine must be easy to build and inexpensive if it will be adopted into the community. We recognized this need and designed the machine from the start with low cost in mind. The machine will only contain parts that are readily available in rural areas. For all machine components it uses bicycle parts. The pedal operated pulses peeling machine is quite different from the community's current method of pulses peel the community may be reluctant to try the new machine. To encourage the adoption of the pulses peeling machine. We will run the trial periods with groups like the pulses peel cooperative who are already familiar with pedal powered machines; they have already proved they are willing to try new technologies. We achieved what we desired i.e. to build a manually driven pedal powered low cost pulses peeling machine using locally available materials and performing necessary function of peeling the pulse with ease. The pedal operated pulses peeling machines is used for workout and exercises.

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