

RESEARCH ON MULTIPURPOSE MACHINE

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Abstract: Energy is the most vital aspect in the development of modern technological civilization. The conventional energy sources are being scarce, so alternative energy sources are found which must be cheap, easily available and must satisfy the technical requirements. Power required for pedalling is well below the capacity of an average healthy human being. The system is also useful for the work out purpose because pedalling will act as a health exercise and also doing a useful work. The system is also used in electric power.

1. INTRODUCTION

Nowadays **ELECTRICITY** is the very basic need as food water and home. But as the rate per unit increases the electricity becomes more costly. So i have invented a machine which don't require electricity for several operation like cutting, grinding etc. This is a Human Powered machine runs on chain drives mainly with human efforts. But if you wanted to operate this machine by electric power this machine can also does that. It has some special attachment so use both human power as well as electric power.

2. AIM

- My aim is to produce a machine which runs without electricity as well as electric power and can perform multi task at a time.
- This machine uses human power stored in the body to run the grinding wheel, saw.
- Once human or motor operate this and start all the component start their working rapidly.
- We can remove the tool if we don't need and can join it again when needed.

People now a day they people need good and efficient work with multi functions. There are so many object is innovated today that they demand more and more.

3. FIELD OF INNOVATION

Component requirement of machine:

- Metal base.
- Chain.
- Pulley.
- Rubber belt.
- Grinding wheel.
- Saw.
- Bearing
- Foot pedal. (For operated by human.)
- Electric motor.
- Chain socket.

My purpose is to be made a machine which operated under electric power or by human power. This machine also have multi task ability at a time.

4. LINE DIAGRAM OF MACHINE

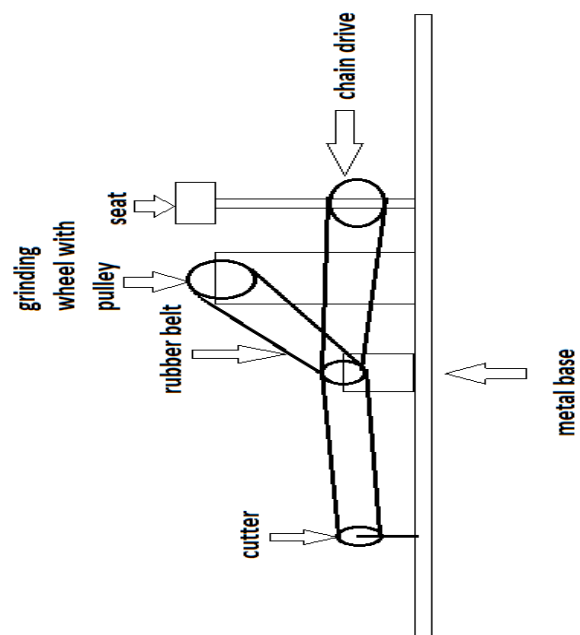


Fig. 1. Line Diagram of Machine

Here above show line diagram of machine. In these diagram some of operation tool mounted on it.

If these machine used in rural area where no electric power available in that case these machine operated by human and all the chain drive is also attached by dynamo which produce electric power. And do their work with generation of electric city. These machine also working as a generator. By operated by human max 3 task is to be performed.

Fit man can run this machine 45-60 min. maximum.

If we want to operate this machine by electric power, only remove the pedal screw and join the motor shaft in it and run. It run several work at a time. For more join of attachment like pumping, shaping, etc. It is all in one machine which perform many operations.

As I shown in diagram if we wanted to remove attachment we can easily remove it and place any other tool to perform a task

5. APPLICATION

- Generation of electric power
- Sawing
- Drilling
- Shaping
- Pumping
- Grinding
- As use of exercise machine.

6. CONCLUSION

In this paper, I present my vision about the how machine can perform multi task and perform several operations at a time. My aim to give a electro-friendly machine to rural area which no need of electric power. And for urban areas for time consuming and multi task machine for their fast track life-style.

REFERENCES:

- [1] Prof. S.G.Bahely & Dr. A.O.Awate at Prof.Ram Maghe Inst. Of Tech,Badnera.
- [2] Dr. Job S Ebenzer,Presedent at Technology for poor, Westville,OHIO.
- [3] Dr. J.J.Magdum College of Engineering, Jaysinghpur, Maharashtra had made a HACK SAW MACHINE.