

COCONUT FIBRE EXTRACTION MACHINE

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Abstract

The purpose of this paper was to design and create a coconut fiber removal machine for farmers and small-scale coir companies in India to provide an efficient solution to current process problems, decrease time and labor costs and create a compact coconut fiber extraction machine that could be used in distant villages to tap unused husks from such fields and fiber can be produced immediately accessible to the Coir Industry.

Key words: coconut fiber removal machine, small-scale coir companies, extraction.

Introduction

Fiber extraction procedures[1], [2] are diverse and rely on the efficacy of wet processing such as bleaching and coir dyeing as well as diverse end uses. Traditional husk fiber manufacturing is a laborious and time-consuming method.



Fig. 1 Traditional and Mechanical Fiber extraction methods

Methodology

Motor operated type-2 coconut fiber extraction machine, a motor is mounted at the base, lower pulley at the end of the engine provides drive to larger pulley connected to the equipment with the assistance of V-belt. One of the gears will drive another gear, and with the assistance of these gears, Barrel will rotate in the reverse direction. Coconut with untapped husk is supplied between

barrels from one end and round coconut shell is automatically transferred to another end and gathered in the bath after the procedure and separate fiber material is gathered in the sack below. In this idea, cutting pins have been mounted on the aggregated hole on barrel surface, cutting pins help to remove fiber and give coconut shell linear movement to exit. In this form, the cutting of pin indexing angle and distance plays a significant role.



FIG.2

Conclusion

The production of the item is based on the design ideas and growth. This product can de-fiber[3] 100 coconuts per hour and is going to be useful for farmers and coir sectors on a tiny scale. It is easy to assemble and maintain. This model is compact with a nice range of low price and safety productivity.

References

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