A Mechanism for Cutting Coconut Husks

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Abstract: This paper details the conceptual design of a machine for cutting coconut husk halves into pieces for activated carbon production. Alternative interlocking and welded blade arrangements are presented with the potential for scaling up the processing of coconut husks into smaller pieces. Virtual simulations and the experimental testing of a functional prototype are used to validate the conceptual design. The design is shown to be functionally acceptable, and directions for further improvements and development are outlined.

Keywords: Machine design, conceptual design, coconut shell processing