

Cardless Jacquard

By : Mr. Dipak Bharali , Kamrup, Assam

Innovation Description

Profile

Innovator Shri Dipak Bharali hails from the Kamarup district of Assam.

Purpose

Making the punch card is a very tedious, laborious and expansive job for shri Dipak Bharali. Besides this storing the card in good condition is another difficult task. So, he wanted to use the graph paper itself as the card and make holes in the graph paper according to the design. Thus he came with the idea to develop Cardless Jacquard

Technical details

The concept of innovation is based on electromagnetism. There will be two major components. One is the electromagnetic head and the other is the base component. The base is consisting of graph paper with holes on the design, metal pins and metal rods to receive the pins passing through the holes. The pins passing through the holes and the receiving rods complete the circuit and this will switch on the respective electromagnet which in turn pulls the hooks of the jacquard head that are not required to lift for that particular design.



Punch Card

The Jacquard loom is a mechanical loom, which has holes punched in the pasteboard, each row of which corresponds to one row of the design. Multiple rows of holes are punched on each card and the many cards that compose the design of the textile are strung together in order.

The punch cards have holes through which a hook can pass, determining whether the thread lies above or below the weft. The hook raises or lowers the harness (a part of a loom that holds and controls the heddles), which carries and guides the warp thread so that the weft will either lie above or below it. The sequence of raised and lowered threads is what creates the pattern. Each hook can be connected via the harness to a number of threads, allowing more than one repeat of a pattern.

Benefits

Cardless Jacquard makes the making of punch cards very easy.