



### **National Award – Third**

### **Automatic Weft Winding Machine**

Ram Prasad Meher  
Bargarh, Odisha

Ram Prasad (50) is a school drop-out and since childhood has had a keen interest in arts and crafts, which made him join his family business of weaving. He owns a small workshop where he develops machines for textiles and saree weaving, mainly *Sambalpuri* saree.

Prasad's father used to make bundles of thread for dyeing and for making different designs for which he used two tree trunks. One had to walk around the trunks making an elliptical shape for winding the thread bundle. This led to less output with more time consumption. Prasad started designing a machine that could do winding and spinning work at faster rate and after working hard for 2 months, he came up with a prototype, which was able to wind cotton automatically.

The machine has a drum over which weft winding work is done, getting power from a 0.25 hp electric motor. The innovator has made a special component, which rotates periodically due to the impulse provided by the flat bars with the help of its cutting edges, responsible for the feeding of threads in both forward and reverse movement.

Purra bed (uniform thread distribution system) is attached to the chain and moves along the length of the drum. The forward and reverse action of Purra is controlled by a lever. A foot pedal actuated brake system is provided to stop the rotation of the drum.

The machine can wind 5 bundles of yarn within an hour, which otherwise takes 2 days if done manually. The machine costs Rs. 22,000/- and 90 units have been sold till date.

