

Pressure cooker coffee maker

National Third
Household & General Utility

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Conventionally, the pressure cookers have been used for making food only. However, Rozadeen (46) has modified the ordinary cooker to convert it into an espresso/cappuccino coffee making machine. The modified cooker is used to boil water and generate steam. Through a long delivery pipe having a regulator, high pressure steam is used to make frothy, tasty coffee.

Rozadeen alias J P Ustad was born in Motihari, Champaran in 1963. Champaran has a special place in the history of the country because Gandhi perfected the instrument of Satyagrah here in 1917 after lessening the exploitation of indigo farmers within six months. This experience eventually led to the call for full freedom in 1929.

Coming from a very poor background, Rozadeen could not study at all. His father died when he was only ten years of age. While his father was alive, he spent his time playing marbles, *gulel*, *kabaddi* and catching fishes from the pond and the river. Things changed after that. His mother took to tailoring to support the family of seven. Starting in his early teens, he has spent

over three decades of his life working as a mechanic of bicycles and rickshaws, and in battery manufacturing & repairing works. Presently, he does the job of gas and electric welding. He has a small thatched shop on rent where he does all his welding works. He has his wife, four daughters and two sons in his family. Two eldest daughters are married while the younger daughters are studying. His sons, still in their teens, discontinued their studies after class eight and have been working as plumbers in Motihari.

The idea

Whenever Rozadeen used to go to marriage parties, he used to observe people thronging at the coffee stall. He reflected and realised that not many actually drink coffee otherwise in their daily lives and have tea instead. Also coffee is not an available option at all places and most tea stall owners cater tea only. Exceeding Rs. 5000, the electric coffee making machines were costly and out of reach for most road side vendors. He thought if he could make a device at low-cost, it may help him augment his finances and supplement the income of tea vendors also. He conceived this idea in 1993 and thought about it for a while as it involved some investment. He took some time gathering information about the coffee making process so that errors could be minimised. His income was already insufficient and an investment of a few hundred rupees without the guarantee of success was a risky proposition. However, he went ahead and slowly over a period of a few months and investing some three thousand rupees then, he finally made a prototype using an old cooker and tubes of copper. For this he had to take a loan of Rs 2000 from one of his friend, which he repaid later.

The coffee cooker

The innovation is a pressure cooker modified to incorporate a copper delivery pipe on its lid to transfer the steam generated inside to a container outside.

Fabricated from locally available material, this coffee cooker consists of an ordinary pressure cooker fitted with a copper pipe, a pressure releasing

valve actuated by moving a lever (screw driver originally used). The copper pipe along with valve has been fitted on the top of lid by gas welding.

Water is heated in the cooker. Once sufficient steam pressure is reached, it is released by moving the lever upwards. The delivery tip of the copper pipe has been constricted to create more pressure at the point of release of steam. The safety valve below the handle and the whistle has not been touched. Rozadeen has named it as 'JP Ustad coffee cooker'.



The cost of coffee cooker depends upon its size. A new 10 litre capacity cooker costs Rs. 2000 while a modified old one costs Rs. 750. Similarly a new 5 litre cooker costs Rs 1000 and an old one Rs. 500. If someone brings his own cooker, he does the modifications in only Rs. 250. This modification can be done in any size of pressure cooker. There are other coffee makers available¹ but in this case the novelty lies in generating the steam in pressure cooker and directing it through a delivery pipe into a jug containing coffee powder, milk and sugar. NIF has filed a patent in his name for the coffee cooker.

Diffusion and feedback

Taking 50 per cent advance Rozadeen only prepares coffee cookers on demand. He has sold over 1500 such coffee cookers in Motihari and other areas namely Bagaha (Indo Nepal border), Dhaka, Bairgania (Sitamarhi district), Raxaul, Bettiah, Sugauli, Samastipur and many other places. The demand is highest during the winter season.

This low-cost coffee cooker has good potential in road side hotels, tea stalls, small *dhabas* and other places where as choice coffee can be offered

along with tea. It can even be used at homes for preparing coffee. One just has to change the lid of the cooker and the pressure cooker gets converted into coffee cooker.

This coffee cooker is common sight at any tea stall in Motihari. Feedback was collected from many tea stall owners who had been using this cooker for years. Most of them said that it has increased their clientele by drawing in the people who prefer coffee over tea. The cooker is economical and affordable. The coffee cup is sold for Rs 6-10 depending upon the size of the cup. The taste of the coffee is also different than that from an electric espresso machine. It feels and tastes soft and frothy more like a cappuccino than an espresso.

Rozadeen is looking for support to scale up his innovation. Presently he is making the cooker on demand only. He wishes to have some support so that he has make and keep 5-10 pieces ready for customers as many of them come from different districts also. He was felicitated during the 22nd Shodh Yatra in Bihar in 2008-09. A story on his innovation was done by a prominent newspaper, *Dainik Jagaran* in November 2008 and also by ETV channel during the Shodh Yatra. "*Paisa hoi tabhina dimaag badhi*" quipped Rozadeen when asked about any other idea.



¹ Prior art discloses a kitchen appliance to brew coffee without having to boil water in a separate container is well known concept (<http://en.wikipedia.org/wiki/Coffeemaker>). It also discloses steam-driven, piston-driven and pump-driven espresso machines ([www. http://en.wikipedia.org/wiki/Esspresso_machine](http://en.wikipedia.org/wiki/Esspresso_machine)). The first one uses steam pressure while the other one uses pressurized hot water for brewing coffee. In the South Indian method of making coffee (<http://vegeyum.wordpress.com/2008/05/09/tt11/>) hot water is dripped very slowly through the coffee, milk is separately boiled, sugar is added, both coffee concentrate and milk are hand mixed using two mugs by pouring from one mug to other many times.