

Self Dispensing Jug

National Third Idea



Sukomal Basak
Cooch Behar, West Bengal

An interesting idea to have a jug that can automatically dispense the liquid contents in the glass has been conceived by Sukomal Basak (36) from West Bengal.

Born and brought up in Tufanganj, Sukomal runs a grocery shop. Tufanganj is a small densely populated municipality of Cooch Behar. Predominantly middle class, the people here are engaged in various services. He lives in a joint family with his parents, wife, son and two younger brothers. A school drop out, he did not continue his education beyond class ten as he had to assist his father in running the grocery shop. His immediate younger brother is also class ten pass and runs a pan shop nearby. The youngest brother completed his graduation in commerce and works in a mobile shop.

Since his childhood, Sukomal had a keen interest in the biographies of great innovators like Edison and Graham Bell. He also liked the science subjects. Of and on he did conceive many ideas but did not think sufficiently hard enough to convert them into prototypes. Lack of funds also did not help his desire to innovate. One interest that has continued till date unabated



is his liking for newspapers. In fact it was through the *Anand Bazaar Patrika*, one of the most read and influential news papers of West Bengal that he first came to know about NIF. After the NIF's Third Award function in 2005, the news about Mahabir Chaube of Bankura winning an award for his idea about an innovative screw was published in the news paper. This intrigued Sukomal and he decided to do something of his own too. To get better ideas, he even started watching Discovery and National Geographic Channels.

When the advertisement of NIFs' Fifth National Competition for Grassroots Innovations and Traditional Knowledge Practices got published in February 2006 in *Anand Bazaar Patrika*, he ascertained his eligibility for participation and started thinking about different ideas. Finally a few months later, he submitted his idea about the self dispensing jug.

The thought about the idea

Sukomal started going to the ration shop to purchase kerosene for the household class five onwards. He used to observe that how the helper in the ration shop transferred kerosene from a larger container to a smaller one by sucking an end of a plastic pipe. One day he tried replicating the same at his home using water. He was successful. He started thinking of using this concept somewhere for practical utility. While in class eight he read a story, 'Technology for Mankind', where there was a reference to restaurants and serving of water. It immediately struck to him that he could develop this idea for such an application. The idea lay dormant in his mind till he submitted it to NIF many years later.

The self dispensing jug idea

Sukomal thought about an apparatus having a container and a dispenser that pours liquid as soon as a glass is kept below the dispenser. The main container with four dispensers (on four sides) would be kept on a stainless steel base. Below each dispenser, on the platform, there would be four switches. These switches will be connected to a valve, which opens when

the switch gets pressed due to the weight of the glass placed on it. As a result, the liquid from the main container will flow out through the dispenser into the glass. The liquid would only be dispensed till the time the glass is on the base.

Initially, Sukomal sent only an illustrated idea to NIF but later made a model in paper and sent it across. Taking out time from his regular work, it took him four months to develop the model. NIF evaluated the feasibility as per the model's description and through its Value Addition and R&D fund, supported him financially to develop a working prototype. Prior to the support, elaborate search was performed to ascertain the novelty of the idea. It was found though different dispensing mechanisms and jugs of different shapes and design existed but no such jug was available, which had multiple dispensers activated by mechanical switches. NIF also filed a patent in the name of Sukomal for this apparatus assembly.

Sukomal did not have any formal training in fabrication. It took him time to understand the characteristics of different materials that he could possibly use to make the apparatus. Working slowly over another few months he was able to complete the prototype of the self dispensing jug apparatus made in tin using GI and aluminium pipes.

Being an amateur attempt, the finish was not upto the mark. Also in execution two of the four dispensers failed as the joints were not properly done and the spring attachments were improper. However, with some design inputs, the overall look, feel and efficiency could be improved. NIF has engaged experts for working on the concept of Sukomal. This self dispensing jug apparatus can be used in restaurants, homes, public water/milk booths or even in ration shops or chemical industry to dispense liquids/chemicals.

While developing the self dispensing jug, Sukomal also conceived an idea about an economical manually operated mixer, which can be used in kitchen for smoother mixing of different ingredients or for any other mixing or blending task. He is quite happy and satisfied about his work and looks forward to complete his self dispensing jug and then with the help of NIF, move on to do some other innovations, which can be used by masses at large.