Walking stick for the elderly[78]

CONSOLATION

Gopal Suresh Patil (19) hails from Dondaicha village in Dhule district, Maharashtra and is in his second year of Bachelor of Arts. He has an elder sister who has studied till the 12th and now helps their mother in household work. His father is a B.Com degree holder and works as a teacher in a school for the deaf and dumb run by an NGO in the village. The family income is Rs.6000 per month. *"They gave me time and old batteries and even though I was a child they never discouraged me,"* thus Gopal expresses his gratitude towards his family who supported him throughout the process of developing a novel walking stick for the elderly.

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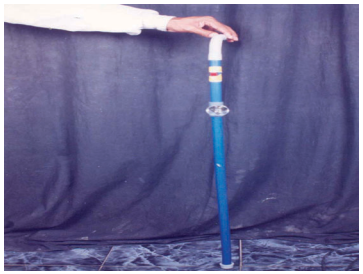

Genesis
Gopal used to notice his grandfather facing problems in carrying the torch, his tiffin and a walking stick when he used to go to the fields in the night. This made him wonder how he could ease his grandfather's discomfort and one day he came up with the idea of a walking stick with light. He made the device in one day.

The innovation
The innovation comprises a walking stick made up of PVC pipe with a switch at the upper end of the stick to turn the light source on and off. There is an illuminating light source (a reflector with a small bulb used in torches) towards the upper end of the stick (just after the curved part of the stick). A T- Joint is used for securing the bulb on the stick. Four power source/ batteries are arranged vertically one above the other in series at the lower end of the stick to supply the power to the small bulb through wires and a switch. Out of the two wires coming from '+' and '-' ends of the power source respectively, one wire goes to the bulb directly and the other wire goes to the switch and then to the bulb and thus the circuit is closed whenever the switch is put on to illuminate the bulb. This stick illuminates the area close to the feet of a user in the night and enables the user to be mobile at night also.

Advanced or improved night stick
In his first experiment he took a stick and tied 10-12 batteries i.e. pencil cells to this stick with a thin strip of cloth. He gave the connection with a wire and put a DC bulb then added a switch to put the bulb on and off. He later developed a more advanced version of the stick. For this a hollow stick or a PVC pipe according to the required height is required. The pencil cells (discharged or with little power in it) are inserted in the hollow pipe and the connection or wiring can be given from inside the pipe. The bulb is connected to the wire with a holder.

Gopal made the first prototype in 2002 when he was in the tenth standard. It took him about 15 days to complete the first prototype. This device costs Rs.70 currently but Gopal feels that when it is mass produced the cost can be brought down to as low as Rs.45 per stick. In

addition the operating costs are negligible as the used up pencil cells of the remote control, radio, clock, lighter, toys etc can be re-used in this device. Till date he has made ten prototypes. He gifted one to his friend's grandfather one is being used by his father. One Mr Sahebrao Pawar has been using it for a year and is fully satisfied with this device.

Constantly improving

Focused on improving his innovation further, he plans to install a battery re-charger at the bottom of the stick and is also trying to add a horn system so that it has the added facility of producing sound. He is also working on overcoming the existing drawbacks namely that the focus should be from inside, the L bow should be tight and the light should be brighter.

A gift for the elderly

In villages people go out to the fields to relieve themselves at night. In the case of the elderly, they carry a tin with water in one hand and a stick in the other hand. At night ideally they require a light also but they are unable to carry one as neither hand is free. But this novel walking stick solves all the problems – the aged get support from the stick and the requirement of light is also met by it. This aid could be sold through NGOs dealing with the welfare of the elderly.

A fulfilling experience

Gopal remembers with satisfaction that lots of people appreciated his innovation. Elders blessed him. He also got some suggestions regarding making it self-generating etc. He faced no criticism but while he was making it, initially people kept on saying that this was a very simple idea. But now they realize that something which is simple can be unique and useful. This innovation was demonstrated in the village and also in North Maharashtra University, Jalgaon and SSVPS Engineering College, Dhule as well as in a workshop at state level at Yeotmal. Testing of this device was done by Industrial Technical Institute, Shindkhedu. The response was positive from all these organizations and all appreciated the device. This is not Suresh's first experience with innovations - he had earlier made a bicycle horn with a small tin and stones. He wishes to give full credit to his family who supported him throughout the process. His parents admit that initially they were worried that he was not concentrating on his studies but still they did not restrict him from doing what he wanted. They are now very happy and proud of him. His dream is to make some device which will be useful for the common man.