

# His chemistry with science

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ATTRACTION-REPULSION, velocity, radius, momentum, magnetic levitation, polarity, Newton's third law, alternate current, direct current—these are some of the scientific terms, which you do not expect a cobbler to be familiar with.

However, city-based Shivaji Mane, who used to mend shoes till 2007, is not only well-versed with these terms but is also using them on a day-to-day basis. Originally

## From mending shoes to conducting science-based toy workshops — Shivaji Mane's journey is not only interesting but also an inspiring one

from a small village called Jadala in Latur district, 27-year-old Mane came to Pune in the year 2000. After trying his hands at other means of income, like that of a security guard, waiter, cook and so on, Mane settled as a cobbler. "Even my father used to mend shoes. Due to

our bad economic condition, I could not study beyond the fifth standard. Even though I wanted to do something apart from cobblery, I couldn't succeed," said Mane.

His destiny took a turn when a friend of his informed him about a vacancy at IUCAA in the house-keeping department. The friend also mentioned that the institute is into science and technology. Having a strong inclination towards the subject since childhood, Mane accepted the offer instantly. After working his office timings of 7 am to 3.30 pm, Mane used to sit in the classes that were conducted by Arvind Gupta, who is famous for making toys out of waste. "The sessions were really fascinating. It was incredible to see how so many waste materials were being used so creatively to invent toys. I used to carry a small notebook to jot down notes and would later discuss my doubts with Gupta sir, who was very helpful and co-operative," says Mane, who attended these workshops for over a year under the guidance of Gupta, Vidula Maheskar, Ashok Ru-

**The real cool dude**

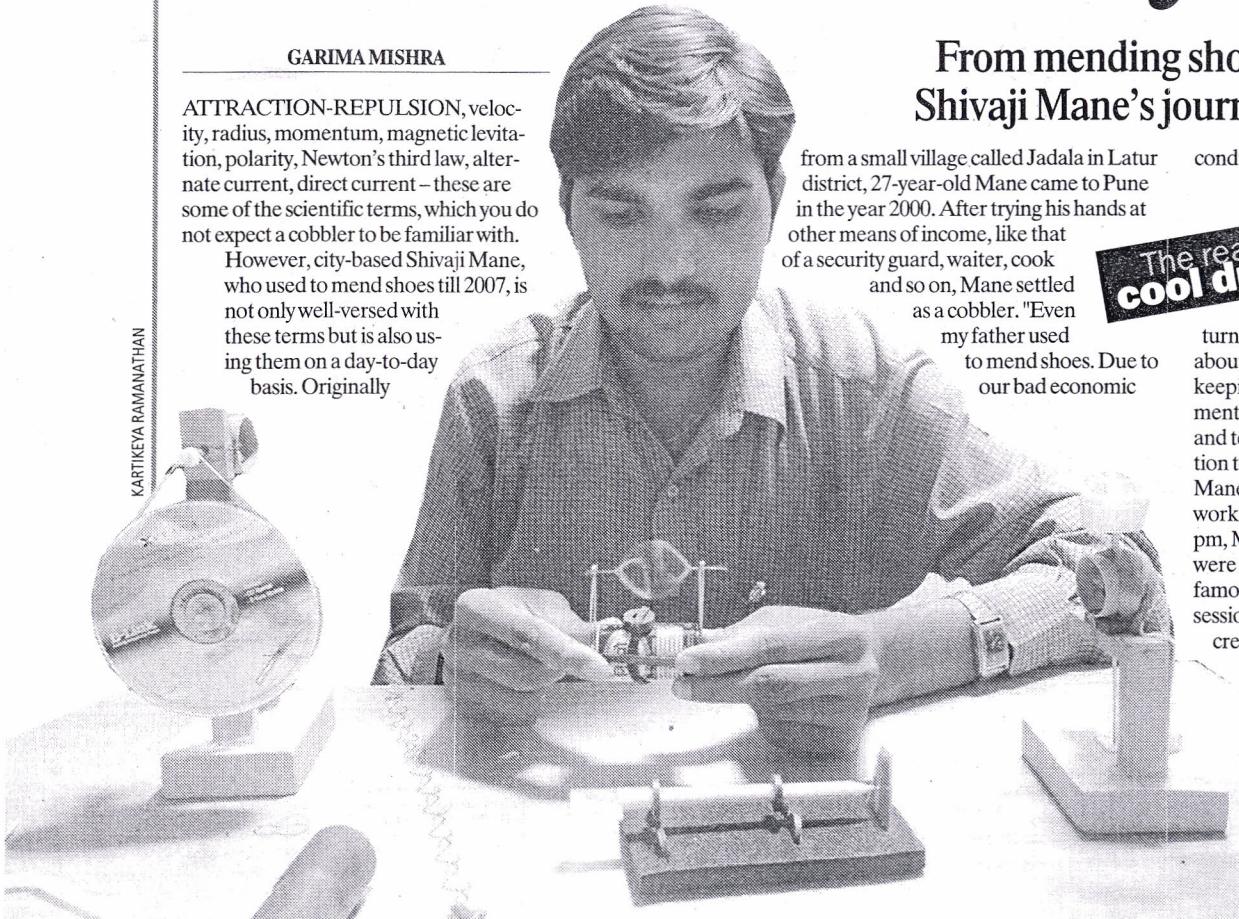


paner and Jyoti Hiremath. In 2008, a vacancy came up, which required the candidate to visit small villages and conduct workshops at rural schools. It was a dream come true for Mane.

Since all the toys that Mane has learnt at the workshop are science-based, it is not too difficult for him to explain how a one-way valve works in a balloon pump. He can easily brief you as to why while making a small model of a generator, one should use copper wire or a bulb. "Copper is a good conductor of electricity and bulb works as an indicator," he explains. With a newspaper, he not only teaches the kids 90 degrees, 135 degrees and 180 degrees angles, but also demonstrates a hexagon, pentagon, a square and a triangle.

Uptil now, Mane has visited 150 schools and around 100 villages and districts that include Khed, Latur, Sangamner, Dombivilli, Jalgaon, Nasik, Kolhapur, Purandar Taluka and so on. Apart from Maharashtra, he has also visited cities like Bengaluru, Mysore and a few places in Gujarat.

**Spiral Snake, a toy made by Shivaji Mane**



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