

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202611030669 A

(19) INDIA

(22) Date of filing of Application :13/03/2026

(43) Publication Date : 08/05/2026

(54) Title of the invention : EDIBLE OIL DISPENSING AND PURITY VERIFICATION DEVICE

| | | |
|---|---|--|
| (51) International classification | :G01N 21/41, G01N 33/03, B67D 7/04, B67D 7/06, A47J 47/01 | (71)Name of Applicant : 1)Chitkara University Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura Punjab India |
| (31) Priority Document No | :NA | (72)Name of Inventor : 1)Dr. Rajneesh Talwar |
| (32) Priority Date | :NA | 2)Dr. Manvinder Sharma |
| (33) Name of priority country | :NA | 3)Dr. Tejpal Sharma |
| (86) International Application No | : | 4)Dr. Ritu Talwar |
| Filing Date | :01/01/1900 | 5)Dr. Yugnanda Puri |
| (87) International Publication No | : NA | |
| (61) Patent of Addition to Application Number | :NA | |
| Filing Date | :NA | |
| (62) Divisional to Application Number | :NA | |
| Filing Date | :NA | |

(57) Abstract :

An edible oil dispensing and purity verification device, comprising a housing 101, a plurality of transparent oil storage chambers 102 to store a different edible oil, a touch interactive display panel 104 to receive user inputs, a refractive-index sensing element 107 to estimate refractive index values of the oil by compensating for optical properties and thickness of the chamber 102 material, an analysis module to fuse the purity sensing assembly and optical verification stage to compute a real-time oil purity percentage, a dispensing nozzle 108 to dispense the selected edible oil in a controlled manner based on user-specified quantity, an imaging camera 110 to reconstruct a three-dimensional profile of a receiving container prior to dispensing, and an acoustic transducer 111 to deliver voice-based alerts and corrective guidance during dispensing and safety events.

No. of Pages : 27 No. of Claims : 10