Solar charger for hearing aid

Country of origin | Botswana & Brazil

Health problem addressed
7% of the world’s population is hearing impaired. That is a total of 312 million people, of whom two-thirds are living in developing countries. The extent of hearing loss leads to unnecessary poverty and hardship in the families and communities affected, and by extension, to the larger society. It also costs governments up to 3% of their GNP.

Product description
Rechargeable hearing aid, solar charger and rechargeable hearing aid battery.

Product functionality
This device has a rechargeable hearing aid battery which costs $1 and lasts 2-3 years. To charge the battery, a novel, but not patented, solar powered battery recharger was developed, which can be recharged via the sun, household light or plug in using a Nokia cell phone electrical recharger.

Developer’s claims of product benefits
This device is the only low-cost rechargeable analogue and digital hearing aid on the market.

Operating steps
During the day a solar panel charges 2 AA rechargeable batteries. Once or twice a week, one takes out the rechargeable hearing aid battery and puts them in the charger. The next morning these batteries are ready to use again. One can also charge the batteries using a household light or plug-in. The batteries fit into 85% of all hearing aids.

Development stage
Countries that receive these rechargeable hearing aids, solar charger and rechargeable batteries to do not require FDA or CE approval, but all of these component suppliers have FDA, CE and are ISO approved.

Future work and challenges
The technology is offered for free to like-minded non-profit organizations. In addition, the company helps write the business plans, raise money, and set up manufacturing operations for others for free.

User and environment
User: Self-use/patient
Training: None
Maintenance: Yes, 3-5 years change batteries

Environment of use
Settings: Rural, urban, at home
Requirements: Sunlight

Product specifications
Dimensions (mm): 40 x 20 x 15
Weight (kg): 0.3
Consumables: Rechargeable AA and rechargeable hearing aid battery
Life time: 10 years
Shelf life: 5 years
Retail Price (USD): 48
List price (USD): 24
Other features: Portable, reusable
Year of commercialization: 2002
Currently sold in: 39 developing countries
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