

Martin Nix, a SCI long time member, Solar Smelter Invention just, just got approved by the patent office. As of print time, no patent number has been issued yet but will be shortly. The invention title is HALF PARABOLIC DISH REFLECTOR WITH PLANAR REFLECTOR SOLAR SMELTER. Patent Application number 12/286,583. Basically, it is an improvement over smelter technology in that it puts the focus of the sun safely into a hole in the ground. That means the focus of the sun is not in the air, where the melted metal can spill on people, or where someone can get injured. The focus or target does not move around, but is stable. Not only can this device be used as a solar cooker, it can also generate steam, sterilize medical instruments, or melt rocks, glass and metals. Thus, people can now cook up materials to make useful tools. It can be used for sanitization, being used as a solar powered toilet, gasifying waste to make natural gas and charcoal. It could solve disease problems associated with waste in disaster areas. In mass production, the device should be no more expensive than a bicycle. This invention is literally reinventing fire itself, in that the focus recreates the surface temperatures of the sun, allowing people to make their own energy. This invention should generate temperatures in the 5,000, to 10,000 F range. Just like fire, it should be treated with safety in mind.

A related patent, Application # 12/459,719, titled SOLAR HALF PARABOLIC SHELL SMELTER WITH A HELIOSTAT ON A TURNTABLE, discusses a different version, where a thermal mass stores the sun's heat at night time. It should glow at night providing light. The thermal mass provides hot air (for cooking), and hot water, and steam 24 hours a day, 7 days a week, year round. Unique is that this Solar Smelter can be made out of adobe brick, a commonly available material.

This is not the first time Martin Nix has done patented work in the field of solar cooking for SCI. His early US PATENT 5, 113,845 titled PORTABLE SOLAR HEATING DEVICE AND HEATING PROCESS UTILIZING SOLAR ENERGY is the first patented application of the use of high temperature plastic bags around cookware, in the focus of a reflecting parabolic. He theorized that plastic was transparent to the full sun's spectrum, and that glass was only partially transparent, so by trapping the heat with a glass and plastic combination, would increase temperatures. It worked. This helped the development of the Cookit.

Martin Nix was also awarded another patent this year, US PATENT 8,127,759 WEDGE SHAPE SOLAR COOKER. This is similar to the Cookit, except that it has a smaller "footprint". It folds up much like a wedge. He sees it's biggest application for water distillation, where for example a plastic bottle is filled with salt water on the sunny side, and then on the shady side a second plastic bottle condenses the pressurized steam. The two plastic bottles are connected by a tube. We sure do throw away enough plastic bottles, which can be recycled for water distillation. He calculates that 100 million of these units could provide the distilled water needs of the people of Somalia.

Martin Nix has made it very clear that he wants SCI to utilize this intellectual property. These patents can be viewed at <http://www.uspto.gov/> or by going to Google Patents.

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