

Patent Protection & Registration

[Patents](#) grant property rights on new and useful inventions, allowing the patent holder to prevent others from using, making, or selling that invention without permission for a limited time. U.S. patents are permitted by the U.S. Constitution and are designed to promote scientific progress and invention. By allowing inventors to profit from licensing or selling their patent rights, inventors can recoup their research and development costs and benefit financially from their inventing efforts. There are three main types of patents utility, plant, and design. Utility and plant patents can last up to 20 years, while design patents can last up to 14 years. When a patent expires, the patented material enters the public domain, making it free to use by anyone without a license. U.S. patents are issued by the United States Patent and Trademark Office (USPTO).

[Patterson Intellectual Property Law](#) is pleased to announce the following recently issued [patents](#) obtained for our clients:

[U.S. Patent No. 11,021,023](#) entitled “Rapid Tire Inflation System with air Compressor” issued June 1, 2021 to Bridgestone Americas Tire Operations, LLC of Nashville, Tennessee. Invented by Anthony B. Duncan of Wadsworth, Ohio and Jon I. Stuckey of Uniontown, Ohio. Abstract: An onboard inflation system for a vehicle such as an agricultural vehicle is disclosed, including a tire mounted on a wheel to form a wheel and tire assembly. The tire includes a tread portion and a tire cavity including an inflation chamber adjacent the tread portion of the tire. A storage chamber is carried by at least one of the wheel and the tire. A compressor arrangement is communicated with both the storage chamber and the inflation chamber. The compressor arrangement is configured to transfer air between the storage chamber and the inflation chamber.

[U.S. Patent No. 11,022,067](#) entitled “Closed Cycle Regenerative Heat Engines” issued June 1, 2021 to Stirling Works Global Ltd. of Middlesex, United Kingdom. Invented by Michael Dann and Graham Nicholson of Middlesex, United Kingdom. Abstract: A closed cycle regenerative heat engine has a housing (12) defining a chamber (14). A displacer (18) is housed in the chamber. A shaft (24) is connected with the displacer and extends from the chamber. A power piston (30) is housed in the chamber. The displacer (18) is secured to the housing (12) and is resiliently deformable from a rest condition in response to movement of the shaft (24) to displace the working fluid in the chamber. The displacer may be a multi-start volute spring. The displacer (18) may be provided with a heat storage reservoir to store heat received from a working fluid as the working fluid is displaced from a heating location in the chamber (14) to a cooling location in the chamber and reject heat to the working fluid when the working fluid is displaced from the cooling location to the heating location.

[U.S. Patent No. D920,741](#) entitled “Combined Grease Tray and Control Knobs for a Griddle” issued June 1, 2021 to Rankam Manufacturing Co. of Hong Kong, China.



Invented by Andy Ning Fan Kam of Hong Kong, China. Claim: What is claimed is the ornamental design for a combined grease tray and control knobs for a griddle, as shown and described.