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).

U.S. Patent No. 11,188,292 entitled “System and Method for Customized Heterodyning of Collected Sounds from Electromechanical Equipment” issued November 30, 2021 to Discovery Sound Technology, LLC of Nashville, Tennessee. Invented by John Jenkins of Nashville, Tennessee. Abstract: Systems and methods are disclosed herein for customized presentation of sound data associated with the operation of electromechanical equipment, wherein users of varying hearing capabilities can ascertain conditions of the equipment in real time. A sound detection device includes transducers which collect sound signals from the equipment and convert the sound signals into digital sound data. A processor generates a first audio data set corresponding to the digital sound data received from the sound detection device and, for a given human user, identifies an audio profile comprising perceivable audio frequency ranges. A target frequency range is identified within the perceivable audio frequency ranges for the given human user, and the first audio data set is shifted or mapped to the target frequency range to generate a second audio data set. Audio output signals corresponding to the second audio data set are user-selectively delivered to the user via an audio receiver.