

## 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 15 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. 11,952,250 entitled “Forklift for the Handling of Pneumatic Tires Provided with Transponder” issued April 9, 2024 to Bridgestone Europe NV/SA of Zaventem, Belgium. Invented by Francesco Iozia of Roma, Italy. Abstract: A forklift is provided for the handling of pneumatic tires each having a central cavity and a transponder. A gripping device is configured to engage one or more pneumatic tires. A reader device comprises an antenna and is configured to communicate with transponders of the one or more pneumatic tires. A displacement unit supports at least the antenna of the reader device and is configured to move the antenna between a waiting position, wherein the antenna is arranged at a certain distance from the one or more pneumatic tires engaged by the gripping device, and a working position, wherein the antenna is arranged in close proximity to the one or more pneumatic tires engaged by the gripping device and communication is enabled with respective transponders thereof.

U.S. Patent No. 11,952,715 entitled “Process of Transforming Waste Material into Useful Material” issued April 9, 2024 to Bouldin Corporation of Morrison, Tennessee. Invented by David C. Palmer of Franklin, Tennessee. Abstract: In a process for transforming waste material into useful material, a quantity of waste material such as household garbage or municipal solid waste is provided. The waste material is pre-shredded into pre-shredded waste material. The pre-shredded waste material is processed to at least partially remove one or more selected material components, thereby providing a processed pre-shredded waste material. The processed pre-shredded waste material is then secondarily shredded into secondarily shredded waste material which is then hydrolyzed under pressure greater than ambient pressure to create an aggregate cellulose pulp.

U.S. Patent No. 11,951,687 entitled “Fatigue Life Improvement of Adhesively Bonded Joints” issued April 9, 2024 to Deere & Company of Moline, Illinois. Invented by Nathan Tortorella of Bettendorf, Iowa and Rakesh Kumar Goyal of Pune, India. Abstract: A method is provided for manufacturing an adhesively bonded structure including first and second components including first and second outer surfaces, respectively, at least the

first component being a first metal component, the first and second outer surfaces facing one another and partially overlapping, and the adhesively bonded structure including an adhesive layer received between overlapping portions of the first and second outer surfaces. The method includes deforming the first outer surface of the first metal component along a first isolated path extending beside the first edge of the adhesive layer along at least a majority of a length of the first edge of the adhesive layer.

U.S. Patent No. 11,953,337 entitled "System and Method for Assisted Positioning of Transport Vehicles for Material Discharge in a Worksite" issued April 9, 2024 to Deere & Company of Moline, Illinois. Invented by Jon C. Gilbeck of Bettendorf, Iowa; Jonathan Spendlove of Dubuque,, Iowa; Zimin W. Vilar of Dubuque, Iowa and Cory J. Brant of Hazel Green, Wisconsin. Abstract: A system and method are provided for assisting transport vehicle drivers in material discharge for optimized working at a worksite by work machines such as dozers. A first user interface associated with the work machine accesses a map comprising three-dimensional data corresponding to at least a portion of the worksite. User input is received via the first user interface corresponding to desired discharge location(s) in the worksite to be worked, and output signals are generated for modifying a display on a second user interface associated with the transport vehicle, said modifications corresponding to the received user input and for directing the transport vehicle to the desired discharge locations. The two vehicles may share a common mapping unit such that input from the work machine is applied substantially in real-time at the transport vehicle. Alternatively, the inputs may be translated across mapping units to generate appropriate positioning instructions.