

## **Patent Protection & Registration**

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

[U.S. Patent No. 11,047,455](#) entitled “Belt-tensioning Device” issued June 29, 2021, to Kleemann GmbH of Goppingen, Germany. Invented by Frank Lebender of Gruibingen, Germany; Daniel Andreas of Leipzig, Germany; Vjekoslav Beloevic of Goppingen, Germany; Tobias Kohler of Eisligen, Germany; Karl Fuller of Hohenstadt, Germany; and Otto Blessing of Bartholoma, Germany. Abstract: A belt tensioning device for a crusher or a screening machine for tensioning at least one circulating drive belt which is deflected about a belt pulley of a drive and has a load strand and an empty strand. The drive can be driven with a crushing assembly, a screening unit, a generator, or the like of the crusher by the drive belt. The vibrational stress acting on the machine chassis can be significantly reduced in that the belt tensioning device has two tensioning rollers each of which is rotatably mounted on a holder of a tensioning part. One tensioning roller is paired with the empty strand and the other is paired with the load strand. Additionally, the two tensioning parts can be adjusted relative to each other between an open position and a tensioning position, in which the tensioning parts are held against each other at least opposite the tensioning direction. In particular the tensioning parts can be blocked against each other, and the complete closed system can be freely moved linearly using adjustment guides according to the load situation.

[U.S. Patent No. 11,047,420](#) entitled “Hydrodynamic Bearing” issued June 29, 2021, to Konzelmann GmbH of Lochgau, Germany. Invented by Martin Berger of Oberderdingen-Flehingen, Germany; and Andreas Laage, Milko Konzelmann, Thomas Bahret of Bietigheim-Bissingen, Germany. Abstract: The invention relates to a hydrodynamic bearing, namely a hydrodynamic disk-shaped thrust bearing or hydrodynamic thrust washer, wherein hydrodynamic structures having elevations and having depressions arranged between adjacent elevations are arranged on opposite sides of the bearing, which hydrodynamic structures extend in the peripheral direction, and slopes of the hydrodynamic structures are arranged between adjacent depressions, which slopes extend from the depressions toward the elevations. According to the invention, at least some of the elevations of the hydrodynamic structures of the first side of the bearing are arranged in the region between two depressions of the hydrodynamic structures of

the second side of the bearing, the elevations of a side of the bearing being arranged at an offset to each other in the peripheral direction.

[U.S. Patent No. 11,048,821](#) entitled “Hosted Server System and Method for Intermediating Anonymous Firm Matching and Exit Strategy Negotiations” issued June 29, 2021, to eEmerger.biz, LLC of Clarksville, Tennessee. Invented by Thomas M. Henry, also of Clarksville, Tennessee. Abstract: Hosted server implementation is provided for intermediating anonymous firm matching and exit strategy negotiations. The system generates user accounts in response to user interaction with a hosted server interface, and matches client users based on at least an industry type and user-selected criteria, and electronically presents users with anonymized profiles corresponding to the users matched therewith. Responsive to selection of an anonymized profile, the system enables confidential and anonymous sharing of client user data corresponding to the selection criteria. Further responsive to authorization from each corresponding client user, the system generates intermediated and anonymous correspondence between a first client user and selected client users via a hosted server platform, wherein the hosted server interfaces substantially prevent identification of either client user participating in the intermediated correspondence.

[U.S. Patent No. 11,049,642](#) entitled “Dual Magnetic Component with Three Core Portions” issued June 29, 2021, to Universal Lighting Technologies, Inc. of Madison, Alabama. Invented by Donald Folker, also of Madison, Alabama. Abstract: A magnetic connector assembly has two independent magnetic components sharing a common core structure. The magnetic assembly includes first and second bobbins, and includes a magnetic core. The first bobbin is positioned perpendicularly to the second bobbin. The magnetic core includes at least two core pieces. In an exemplary embodiment, the magnetic core includes first, second, and third core pieces. The first core piece includes at least a first primary middle leg configured to fit within a passageway of the first bobbin and a first auxiliary middle leg configured to fit within a passageway of the second bobbin. The second core piece includes at least a second primary middle leg configured to fit within the passageway of the first bobbin. The third core piece includes a second auxiliary middle leg configured to fit within the passageway of the second bobbin. The auxiliary legs are perpendicular to the primary legs.

[U.S. Patent No. 11,049,643](#) entitled “Combined U-Core Magnetic Structure” issued June 29, 2021, to Universal Lighting Technologies, Inc. of Madison, Alabama. Invented by Donald Folker of Madison, Alabama and Mike LeBlanc of Huntsville, Alabama. Abstract: A magnetic connector assembly has two independent magnetic components sharing a common core structure. The magnetic assembly includes first and second bobbins, and includes a magnetic core. The magnetic core includes first and second core halves, each half including a main core body, a first outer leg, a second outer leg, and a middle leg. The first outer leg fits within a passageway of the first bobbin. The second outer leg fits within a passageway of the second bobbin. The middle leg fits between the two bobbins.

[U.S. Patent No. 11,047,095](#) entitled “Variable Height Offset Mold” issued June 29, 2021,

to Wirtgen GmbH of Windhagen, Germany. Invented by Michael Engels of Obererbach, Germany. Abstract: A slipform paving machine includes an offset mold, and a mold frame actuator which allows the height of the offset mold relative to the paving machine to be controlled. Internal actuators within the mold allow corresponding control of side form assemblies to control both height and profile of a resulting slipformed concrete structure.

[U.S. Patent No. 11,049,649](#) entitled “Magnetic Transformer Having Increased Bandwidth for High Speed Data Communications” issued June 29, 2021, to Bel Fuse (Macao Commercial Offshore) Limited of Andar H-J, MO. Invented by Victor H. Renteria of Poway, California; Chun Wing (Alan) Ng of Tuen Mun, Hong Kong; and Wai Shun Leung of Tseung Kwan O New Town, Hong Kong. Abstract: An isolation transformer includes a transformer core. First and second through-bores extend through the transformer core from a first surface to a second surface. Each through-bore has an elongated profile with at least a portion of the elongated profile providing a respective flat winding surface. The flat winding surfaces are spaced apart by a central portion of the transformer core. The transformer is wound with a six-wire cable having a central non-conductive core. First, second, third, fourth, fifth and sixth conductive wires are positioned around and adjacent to the central non-conductive core in a substantially equally spaced angular relationship. The second conductive wire is positioned between the first conductive wire and the third conductive wire; and the fifth conductive wire is positioned between the fourth conductive wire and the sixth conductive wire. The conductive wires are twisted about the central non-conductive core at a selected twist density.

[U.S. Patent No. 11,047,096](#) entitled “Road Milling Machine and Method for Controlling a Road Milling Machine” issued June 29, 2021, to Wirtgen GmbH of Windhagen, Germany. Invented by Sebastian Winkels of Windeck, Germany. Abstract: A self-propelled road milling machine includes a plurality of height sensors and a controller configured to determine a cross slope of the roadway being milled. Wherein in a first leveling mode at least two sensors are longitudinally aligned and laterally spaced on one side of the milling machine, closet to the center of the road. The controller using sensor signals to adjust the cross slope of the milling drum to be parallel to the cross slope of the roadway adjacent the milling machine. Wherein in a second leveling mode the sensors are on opposite sides of the milling drum.

[U.S. Patent No. D923,906](#) entitled “Winch” issued June 29, 2021, to Tractor Supply Company of Nashville, Tennessee. Invented by Christian D. Fogg of Columbia, Tennessee; Brian Kennemer of Chapel Hill, Tennessee; and Ling Ye, Xiang Feng, Jianhao Zhu, Hong Xu of Junhua, China. Claim: What is claimed is the ornamental design for a winch, as shown and described.

[U.S. Patent No. 11,051,377](#) entitled “Dynamic Overload Protection Method” issued June 29, 2021, to Universal Lighting Technologies, Inc. of Madison, Alabama. Invented by Wei Xiong, also of Madison, Alabama. Abstract: Circuitry and methods are provided for dynamically controlling the operating frequency of a resonant power converter. A

feedback circuit generates error signals representing a difference between sensed output voltages and a constant target output voltage. A controller comprises a frequency control input terminal, and generates drive signals to half-bridge switching elements at determined operating frequencies. A frequency control circuit is coupled between the feedback circuit and the frequency control input terminal. The frequency control circuit sets minimum and maximum operating frequencies for the controller, and dynamically adjusts the operating frequency with respect to the constant target output voltage. A frequency control power supply circuit may further provide signals to the frequency control circuit representative of voltage across the resonant capacitor, wherein the minimum operating frequency is dependent thereon. The minimum frequency may be reduced with decreasing of the output voltage, and a maximum current may be reduced with increased overloading.