

## 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. 11,723,439](#) entitled “Support Belts and Buckling for Support Belts” issued August 15, 2023 to SBD Apparel Ltd. of London, United Kingdom. Invented by Benjamin Banks also of London, United Kingdom. **Abstract:** A support belt (10) includes an elongate belt (12) having a dead end region (14) and a live end region (16) and buckling (18) to releasably connect the dead and live end regions (14,16) in a relaxed tightness condition of the support belt (10) and secure the dead and live end regions (14,16) in a tightened closed condition of the support belt (10) in which a free end (20) of the live end region (16) overlies a free end (22) of the dead end region (14). The buckling (18) comprises a first anchor portion (24) fixedly secured to the live end region (16), a second anchor portion (26) configured to releasably engage apertures (28) provided in the dead end region (14) and a locking mechanism (30) pivotally connected with the first and second anchor portions (24,26) and operable to draw the first anchor portion (24) towards the second anchor portion (26) to change the tightness condition of the support belt (10) from the relaxed tightness condition to the tightened closed condition.

[U.S. Patent No. 11,723,830](#) entitled “Percussive Massage Device with Self-Lubricating Cylinder” issued August 15, 2023 to Hyperice IP SubCo, LLC of Irvine, California. Invented by Robert Marton of Yorba Linda, California and Anthony Katz of Laguna Niguel, California. **Abstract:** A percussive massage device includes a self-lubricating cylinder extending along a longitudinal axis. A motor shaft rotates about a central axis perpendicular to the longitudinal axis. A crank coupled to the shaft includes a pivot offset from the central axis. A reciprocation linkage is coupled between the pivot and a piston that moves longitudinally within the cylinder. An applicator head coupled to a second end of the piston has an end exposed outside the cylinder for application to a person receiving treatment. An annular gasket positioned between the cylinder and the applicator head removes lubricant from an outer surface of the piston to inhibit the lubricant from reaching the applicator head.

[U.S. Patent No. 11,729,883](#) entitled “LED Driver with Auxiliary Output and Low Standby

Power” issued August 15, 2023 to Universal Lighting Technologies, Inc. of Madison, Alabama. Invented by Wei Xiong of Madison, Alabama. **Abstract:** A two-stage driver supplies current to a light emitting diode (LED) load. The driver includes a first stage and a second stage. The first stage has a first flyback converter. The first stage is configured to receive a non-regulated voltage input and to generate a substantially constant bulk voltage across a first-stage output filter capacitor. The second stage has a second flyback converter. The second stage is configured to receive the bulk voltage from the first stage. The second stage is further configured to generate a desired current through the LED load. The second stage is electrically isolated from the first stage such that the LED load does not share a common ground reference with the non-regulated voltage input to the first stage. The driver further includes an auxiliary power supply coupled to an auxiliary winding of a transformer of the first flyback converter to generate an auxiliary voltage.

[U.S. Patent No. 11,725,351](#) entitled “Earth Working Machine having a Rotatable Working Apparatus Axially Positionally Retainable with High Tightening Torque by Means of a Central Bolt Arrangement, and Method for Establishing and Releasing Such Retention” issued August 15, 2023 to Wirtgen GmbH of Windhagen, Germany. Invented by Christian Berning of Zülpich, Germany; Karsten Buhr of Willroth, Germany; Markus Frankemölle of Hennef, Germany; Thomas Lehnert of Oberraden, Germany; Andreas Salz of Neustadt, Germany and Hardy Wilhelmi of Dattenberg, Germany. **Abstract:** A bearing component for mounting a replaceable milling drum on an earth working machine includes an annular connecting flange having a central axis. A bearing stem protrudes from the connecting flange axially in a first direction to a first axial end, the bearing stem having an outer surface including at least first and second cylindrical bearing surfaces axially spaced from each other. The bearing stem further includes a centering recess open at a second axial end opposite the first axial end, the centering recess including an opening angle decreasing in steps so that the centering recess tapers in the first direction, the centering recess forming a portion of the central opening.