

## 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. 11,414,549](#) entitled “Age Resistant Coatings and Methods for Treating Roadway Substrates” issued August 16, 2022 to Blacklidge Emulsions, Inc., Gulfport, Mississippi. Invented by Robert Grover Allen of Biloxi, Mississippi; Henry Cuevas of Long Beach, Mississippi; Roy Brittany Blacklidge of Gulfport, Mississippi and Swathi Theeda of Biloxi Mississippi. Abstract: Aging resistant emulsified asphalt compositions and related methods of preparing and applying the same for use in asphalt treatment and paving applications. The aging resistant emulsified asphalt compositions can include an aging resistant asphalt composition, emulsifier, and water. The resulting residue formed when the emulsified asphalt composition has cured is aging resistant and can be resistant to age-induced cracking even after simulated aging of 14 years and 21 years. Appropriate use of emulsifiers in some embodiments can further improve aging resistance in the residues.

[U.S. Patent No. 11,412,927](#) entitled “Eye Fundus Inspection Apparatus” issued August 16, 2022 to CENTERVUE S.P.A. of Padua, Italy. Invented by Andrei Plaian of Noventa Padovana, Italy and Irene Mogentale of Due Carrare, Italy. Abstract: Eye fundus inspection apparatus (500) comprising: -illumination means (12) comprising at least a light source (121, 123, 124, 126) and adapted to project a first light beam (1) towards a retina (101) of an eye (100); -an optical lighting path (1A) for said first light beam; -acquisition means (27) adapted to receive a second light beam (2) coming from the retina; -an optical acquisition path (2A) for said second light beam; -scanning means (17) adapted to scan said first light beam (1) on the retina with a linear movement, according to a first scanning direction (S1), or with a circular movement about a rotation axis (A), according to a second scanning direction (S2); -light beam separating means (16) adapted to define separate passage zones for said first and second light beams (1, 2) at a pupil of the eye; -a control unit (120) adapted to control operation of said inspection apparatus; -first light beam shaping means (11) and second light beam shaping means (23, 271, 272) that allow obtaining improved retinal images.

[U.S. Patent No. 11,413,624](#) entitled “Drive System for Operating a Crusher and Method

for Operating a Crusher” issued August 16, 2022 to Kleemann GmbH of Goppingen, Germany. Invented by Michael Gnam of Blaubeuren, Germany; Manuel Amann of Esslingen am Neckar, Germany; Gerald Ebel of Goppingen, Germany; and Otto Blessing of Bartholoma, Germany. Abstract: A drive system for driving a crusher of a material crusher plant having a main drive and a power transfer unit driven by the main drive, wherein the power transfer unit drives at least one generator and a first hydraulic pump which is connected to the power transfer unit in a shiftable manner. It is provided that a shiftable fluid coupling is installed in the transmission path from the power transfer unit to the crusher, that the shiftable fluid coupling and a pump are interconnected in a fluid conveying manner in a pump circuit and that a fluid can be supplied to the shiftable fluid coupling by means of the pump. A method of operating such a crusher is also provided.

[U.S. Patent No. 11,417,488](#) entitled “Voltage Limiting Device” issued August 16, 2022 to Rail Power Systems GmbH of Munich, Germany. Invented by Julian Beuchelt of Eppstein, Germany. Abstract: The invention relates to a voltage limiting device which has an electromagnetically operable switching device for producing an electrical connection between a first cable terminal and a second cable terminal wherein a first electrical conductor connects the first cable terminal to the one terminal of the switching device and a second electrical conductor electrically connects the second cable terminal to the other terminal of the switching device. The voltage limiting device is characterized in that one of the two electrical conductors comprises an electrically conductive support plate. The expansion of the support plate in the width direction allows, in contrast to an electrical conductor which is characterized by a small width in relation to the length, a current displacement in the width direction. As a result, the forces acting on the conductive parts of the switching device are reduced and the switching contacts are relieved, as a result of which the electrical properties of the voltage limiting device are improved. As an electrical conductor, the support plate improves not only the electrical properties of the voltage limiting device, but as a mounting plate also simplifies the assembly and mounting of the individual components of the voltage limiting device.

[U.S. Patent No.11,414,820](#) entitled “Self-Propelled Construction Machine and Method for Operating a Self-Propelled Construction Machine” issued August 16, 2022 to Wirtgen GmbH of Windhagen, Germany. Invented by Christian Berning of Zulpich, Germany; Rene’ Muller of Vettelscho, Germany; Sebastian Hofrath of Hennef, Germany; and Cyrus Barimani of Konigswinter, Germany. Abstract: The invention relates to a self-propelled construction machine, comprising a machine frame supported by a chassis having wheels or crawler tracks. The basic principle of the invention involves determining a variable  $\Delta$ , which is characteristic of the milling profile on the basis of a functional relationship between the variable which is characteristic of the milling profile and the advance speed  $v$  and/or milling drum rotational speed  $n$ . The variable  $\Delta$ , which is characteristic of the milling profile is a correction variable for adjusting the height of the



milling drum with respect to the surface of the ground.

[U.S. Patent No. D961,104](#) entitled “Applicator Head for Percussive Massage Device” issued August 16, 2022 to Hyper Ice, Inc., of Irvine, California. Invented by Robert Marton of Yorba Linda, California and Anthony Katz of Laguna Niguel, California. Claim: The ornamental design for a “applicator head for percussive massage device,” as shown and described.