

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. 11,802,384](#) entitled “Removing Earth Working Method with a Removing Tool Offset Obliquely with Respect to the Propulsion Direction, and Earth Working Machine Embodied to Execute the Method” issued November 31, 2023 to Wirtgen GmbH of Windhagen, Germany. Invented by Sebastian Winkels of Windeck, Germany. Abstract: The present invention relates to an earth working method for removing earth material by means of a tool (14) rotating around a working axis (R); the rotating tool (14) being carried by a machine frame (20) of an earth working machine (10); the machine frame (20) standing on a substrate (U) by way of a rollable propelling unit (13) and being driven by a propulsion drive apparatus (25, HM) to perform a propelled motion relative to the substrate (U) in a propulsion direction (VR); the propulsion direction (VR) enclosing with the working axis (R) an angle (β) different from 90° ; and the present invention further relates to an earth working machine embodied to execute the earth working method.