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[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. 11,421,389](#) entitled “Variable Height Mold” issued August 23, 2022 to Wirtgen GmbH of Windhagen, Germany. Invented by Michael Engels of Obererbach, Germany. Abstract: A slipform paving machine includes an offset mold, including a mold frame, a form insert, a form insert actuator and a form insert sensor. A controller receives a signal from an external reference sensor and controls a position of the form insert actuator to control the height of the form insert relative to the mold frame and thereby control a height of at least a portion of a molded structure relative to a ground surface at least in part in response to the signal from the external reference sensor.

[U.S. Patent No. 11,421,456](#) entitled “Locking Apparatuses and a Method of Providing Access Control” issued August 23, 2022 to HavenLock, Inc. of Franklin, Tennessee. Invented by Michael Alexander Bertelli of Nashville, Tennessee and Kenneth Clay Banks of Franklin, Tennessee. Abstract: Apparatuses, methods, and systems for providing a locking apparatus for resisting movement of an openable element are described. The locking apparatus includes a body, an actuator, a lifting member, at least a portion of the lifting member being configured to be raised or lowered relative to the body according to an output of the actuator, the lifting member comprising a contact surface configured to restrict movement of the openable element, and a strap coupled to the body and to the lifting member, the strap configured to permit the lifting member to flex based at least in part upon contact between the lifting member and the openable element and to transfer energy received at the lifting member into the body of the locking apparatus into a surface to which the locking apparatus is mounted.

[U.S. Patent No. 11,421,415](#) entitled “Hybrid Foundation System” issued August 23, 2022 to Home Pride, Inc. of Nashville, Tennessee. Invented by William B. Blevins of Nashville, Tennessee; Andrew W. Oliphant of Brentwood, Tennessee; Claude E. Hammonds of Duffield, Virginia and Jason M. Wilson of Hendersonville, Tennessee. Abstract: A foundation support system for supporting a manufactured building from a ground surface, includes a pan configured to engage the ground surface. The pan includes a longitudinal bracket integrally formed in the pan. The bracket includes a pair of spaced walls extending in a longitudinal direction. First and second longitudinal struts include first and second lower strut ends, respectively, received between and attached to the spaced walls of the longitudinal bracket. The pan may also include an integrally formed

lateral bracket which receives a lateral strut. The pan may include integral reinforcing ribs extending parallel to and between the walls of each bracket.

[U.S. Patent No. D961,700](#) entitled "Four-Square Workout Rig" issued August 23, 2022 to Bob Swallows of Nashville, Tennessee. Also invented by Bob Swallows of Nashville, Tennessee. Claim: The ornamental design for a four-square work out rig, as shown and described.

[U.S. Patent No. 11,419,711](#) entitled "Implantable Superhydrophobic Surfaces" issued August 23, 2022 to BVW Holding AG of Cham, Switzerland. Invented by Lukas Bluecher of Eurasburg, Germany and Michael Milbocker of Holliston, Massachusetts. Abstract: Bio-adhesive textured surfaces are described which allow implants to be localized within a living body. Hierarchical levels of texture on an implantable medical device, some capable of establishing a Wenzel state and others a Cassie state, may be employed to interface with living structures to provide resistance to device migration. Since a gaseous state is traditionally required to establish a Cassie or Wenzel state, and gases do not remain long in living tissue, described herein are tissue/device interactions analogous to the above states with the component normally represented by a gas replaced by a bodily constituent, wherein separation of tissue constituents develops and an analogous Cassie, Wenzel, or Cassie-Wenzel state evolves. Further methods of making molds to produce said devices are described herein.