Shoelace Tying Device That Enables an Individual to Tightly Tie Shoes with One Hand

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a device that allows an individual to tightly tie shoes with one hand.

OVERVIEW

Hand function can be lost or limited as a result of injury, amputation, stroke, arthritis or a birth defect. Individuals with limited hand dexterity often are unable to tie shoes tightly, limiting their independence and footwear options. For example, most sports require tightly laced shoes to provide the necessary foot, ankle and arch support. Shoes with Velcro strips provide an alternative but generally are not suitable for formal or business attire.

THE INVENTION

UW-Madison researchers have developed a lightweight and portable device that requires the use of only one hand to tightly tie footwear. This device consists of a stand, an adjustable knot-tying platform and translational hooks. To tie a shoe, the user places a foot on the stand, adjusts the platform to the appropriate height, places the laces around the hooks and pulls outward.

APPLICATIONS

• Tightly tying footwear with one hand

KEY BENEFITS

• Provides—for the first time—a device that enables an individual to tightly tie footwear with one hand
• Eliminates need for special shoelaces or shoes
• Provides the user with proper support for athletic activities
• Enables an individual to wear conventional footwear for athletics, formal events, business meetings and other occasions that require tightly tied shoelaces

THE WARF ADVANTAGE

Since its founding in 1925 as the patenting and licensing organization for the University of Wisconsin-Madison, WARF has been working with business and industry to transform university research into products that benefit society. WARF intellectual property managers and licensing staff members are leaders in the field of university-based technology transfer. They are familiar with the intricacies of patenting, have worked with researchers in relevant disciplines, understand industries and markets, and have negotiated innovative licensing strategies to meet the individual needs of business clients.
• Device is lightweight, rugged and portable.

STAGE OF DEVELOPMENT

A working prototype has been constructed.

ADDITIONAL INFORMATION

Tech Fields
Medical Devices - Adaptive design

CONTACT INFORMATION

For current licensing status, please contact Emily Bauer at emily@warf.org or (608) 262-8638.