
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	B. Scott Maxfield	
Appln. No.:	18/490,715	Confirmation No.: 5970
Filing Date:	19 October 2023	Examiner: Shiref M Mekhaeil
Title:	MULTIFUNCTION BUTTON FOR LADDER ADJUSTMENT	Group Art Unit: 3634

DECLARATION UNDER 37 C.F.R. §1.132

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

I, N. Ryan Moss, declare that:

1. I have been employed by Little Giant Ladder Systems LLC ("Little Giant") in a variety of positions, beginning in manufacturing in 1984 and continuing to advance in roles of increasing responsibility until I became CEO in 2008, a role I still hold today. I am well-versed in the history of the company and in the state of the ladder industry in general.

2. I am the current President of the American Ladder Institute (ALI). I also regularly attend industry conferences including those held by the American Ladder Institute (ALI), attend focus groups and customer meetings, including annual line reviews, and play a role both at Little Giant and ALI in promoting safety during Ladder Safety Month every March. All of these things keep me abreast of developments in the

needs of our customers, partners, and competitors. It has therefore been an extensive part of my life's work to see and respond to needs in the ladder marketplace.

3. I have actively contributed to, and have been listed as an inventor on, more than 40 ladder and climbing equipment patents, with other patents pending.

4. I have spent my entire professional career in the ladder industry and have 40 years of experience with ladders and climbing equipment.

5. LONG-FELT BUT UNMET NEED

6. There has been a long-felt but unmet need for the invention claimed in the present application (U.S. Patent Application 18/490,715).

7. Little Giant, formerly known as a DBA of Wing Enterprises, Inc., has been a pioneer, innovator, and market leader in ladder technologies since the 1970s. From the introduction of the original articulating ladder, coined the "Little Giant" ladder by Harold R. "Hal" Wing, to today, Little Giant has been at the forefront of ladder development and deployment around the world. While working with Little Giant and while under my leadership, I have overseen the development and launch of a variety of innovative ladder products such as the Sumostance, Hyperlite, SelectStep, and King Kombo products.

8. Throughout my many years of experience in this industry, I have monitored and responded to how customers have sought out ways to store, hold, hang, and otherwise support tools and other equipment while they use ladders from elevated positions.

9. Over this time, we at Little Giant have produced offerings to serve this need, including by providing ladders compatible with or including tool-supporting top

caps (*e.g.*, for the A-Force¹, King Kombo 2.0², Paint Pro³, or Xtra-Lite Plus⁴ ladders), cargo bags (*e.g.*, the Cargo Hold⁵ tool holder accessory), table/tray attachments (*e.g.*, the AirDeck Workstation⁶), bucket accessories (*e.g.*, the Fuel Tank⁷, or Loot Box⁸), tool tray accessories (*e.g.*, the Articulating Ladder Tool Tray⁹, Quad Pod¹⁰, or Tool Tray XL¹¹),

¹ Website for “A-Force Ladder,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/a-force-a-frame-ladder>

² Website for “King Kombo 2.0,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/king-kombo-2-0>

³ Website for “Paint Pro,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/paint-pro-painters-ladder>

⁴ Website for “Xtra-Lite Plus,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/xtra-lite-plus>

⁵ Website for “Cargo Hold,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/cargo-hold-ladder-tool-holder>

⁶ Website for “AirDeck Workstation,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/airdeck-workstation>

⁷ Website for “Fuel Tank,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/fuel-tank-ladder-paint-tray>

⁸ Website for “Loot Box,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/loot-box>

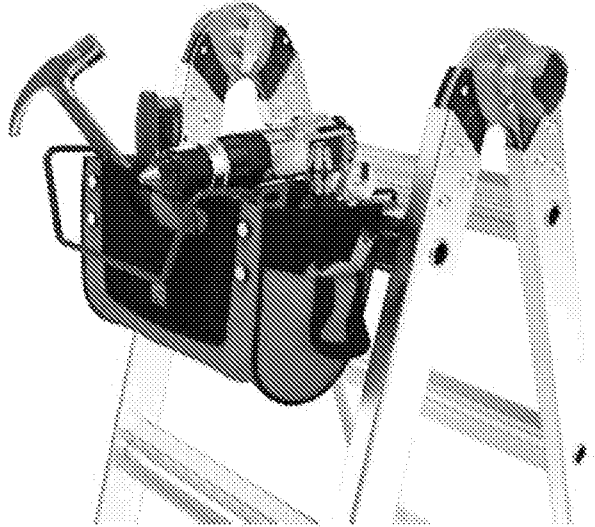
⁹ Website for “Articulating Ladder Tool Tray,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/articulating-ladder-tool-tray>

¹⁰ Website for “Quad Pod,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/quad-pod>

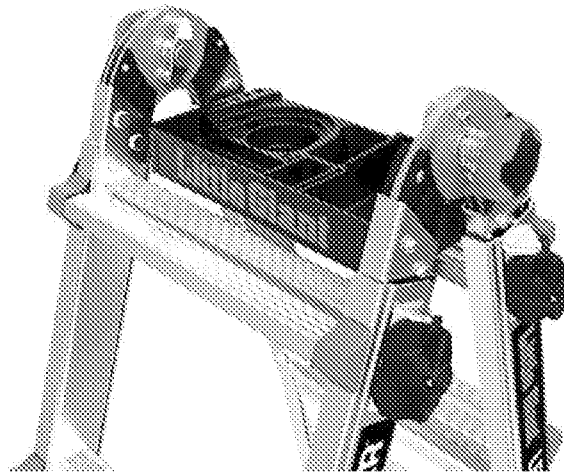
¹¹ Website for “Tool Tray XL,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/tool-tray-xl>

organizers (*e.g.*, the Vertical Organizer¹²), bags (*e.g.*, the Saddle Bag¹³).

10. Example images of some of these products are shown below.



Little Giant Cargo Hold



Little Giant Articulating Ladder Tool Tray

¹² Website for “Vertical Organizer,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/vertical-organizer>

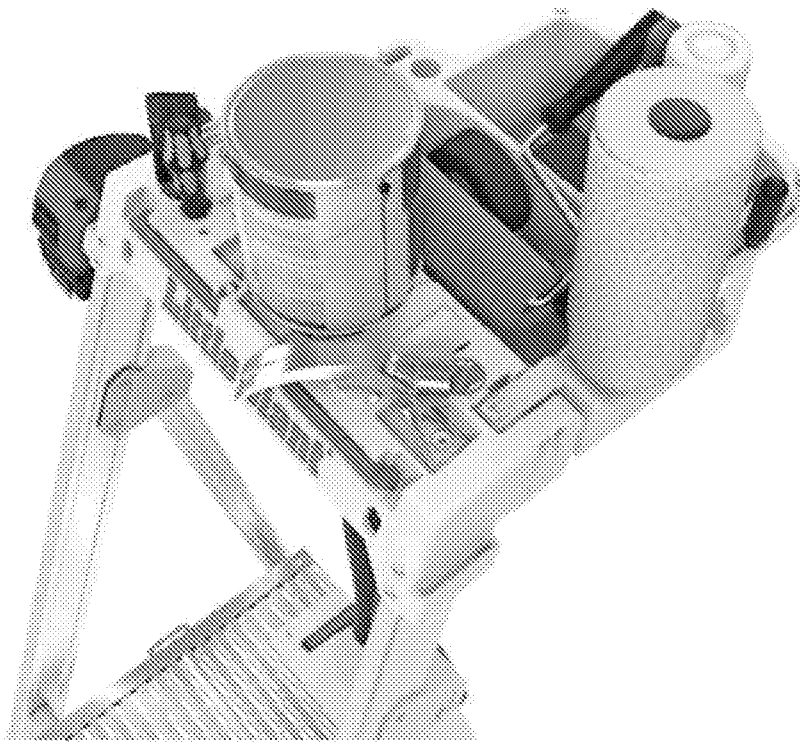
¹³ Website for “Saddle Bag, Tool Bag Accessory for CAGE,” Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/saddle-bag-tool-bag-accessory-for-cage-elevated-enclosed-platforms>



Little Giant AirDeck Workstation



Little Giant Vertical Organizer



Little Giant Paint Pro



Little Giant King Kombo 2.0

11. I have observed over the years how Little Giant's competitors have likewise recognized and attempted to fill the need to hang or support tools at the tops of ladders. In some non-limiting examples, Werner Co. ("Werner") has developed and offers for sale ladders with tool-supporting top caps (e.g., the LOCKTOP or HolsterTop ladders¹⁴), ladder-attachable tool bags (e.g., the Lock-In Tool Bag¹⁵), ladder-attachable tool supports (e.g., the Lock-In ToolLasso¹⁶ and Utility Hook¹⁷ or Paint Can Hook¹⁸), cups (e.g., the Lock-In Paint Cup¹⁹ or Lock-In Job Caddy²⁰), and tool support shelves/trays (e.g., the Molded Plastic Pail Shelf²¹).

12. Likewise, Louisville Ladder ("Louisville"), another long-standing

¹⁴ Website for "6FT TYPE IAA FIBERGLASS STEP LADDER 7306," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/step-ladders/7300Series/7306>; website for "6FT TYPE IA FIBERGLASS STEP LADDER 6206," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/step-ladders/6200Series/6206>.

¹⁵ Website for "LOCK-IN TOOL BAG ACBAG15," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/ladder-accessories/Lock-InSeries/ACBAG15>

¹⁶ Website for "LOCK-IN TOOLLASSO AC58-TL," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/ladder-accessories/Lock-InSeries/AC58-TL>

¹⁷ Website for "LOCK-IN UTILITY HOOK AC56-UH," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/ladder-accessories/Lock-InSeries/AC56-UH>

¹⁸ Website for "AC20 PAINT CAN HOOK," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/ladder-accessories/AC20Series/AC20>

¹⁹ Website for "LOCK-IN PAINT CUP AC27-P," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/ladder-accessories/Lock-InSeries/AC27-P>

²⁰ Website for "LOCK-IN JOB CADDY AC54-JC," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/ladder-accessories/Lock-InSeries/AC54-JC>

²¹ Website for "76-2 MOLDED PLASTIC PAIL SHELF," WernerCo., accessed 17 June 2024, available at <https://www.wernerco.com/us/products/ladders/ladder-accessories/76-2Series/76-2>

participant in the ladder market, offers modularly replaceable tool-supporting top caps (e.g., Top Kit PF1500²²), ladders with tool-supporting top caps (e.g., AS2104²³), and similar devices.

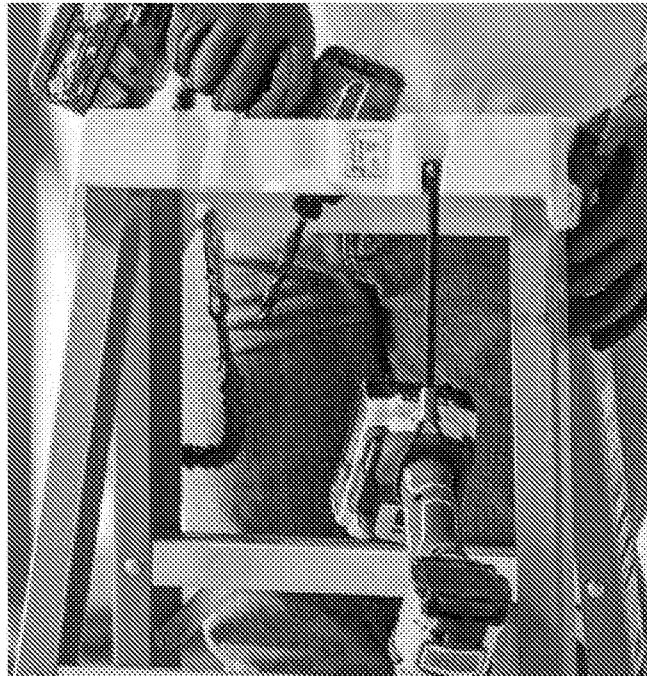
13. Example images from Werner and Louisville products listed above are shown below.



Werner Lock-In Tool Bag

²² Website for "TOP KIT FS 1500," Louisville Ladder, Inc., accessed 17 June 2024, available at <https://louisvillegladder.com/parts-accessories/top-kit-fs1500-PK1042A>.

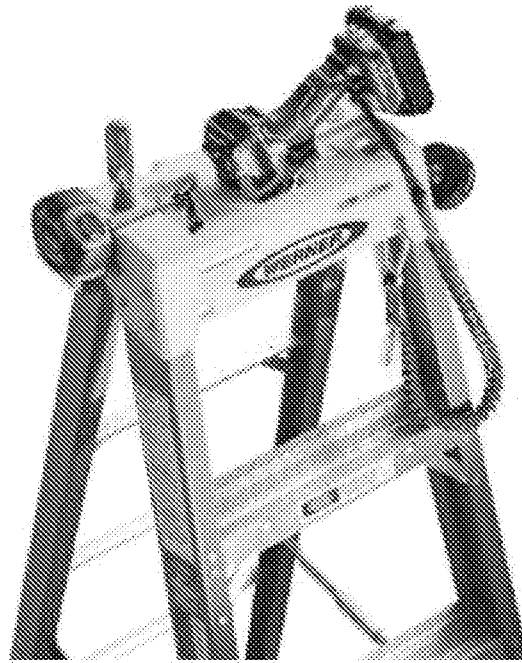
²³ Website for "LOUISVILLE LADDER 4-FOOT ALUMINUM STEP LADDER, TYPE I, 250-POUND LOAD CAPACITY, AS2104," Louisville Ladder, Inc., accessed 17 June 2024, available at <https://louisvillegladder.com/ladders/step-ladders/louisville-ladder-4-foot-aluminum-step-ladder-type-i-250-pound-load-capacity-as2104&id=AS2104>.



Werner Lock-In ToolLasso



Werner Molded Plastic Pail Shelf



Werner LOCKTOP Ladder Top Cap



Louisville Ladder 4-Foot Aluminum Step Ladder, Type I (AS2104)

14. The above-listed Little Giant devices and competitor devices represent recent iterations of a broader array of similar tool support options that have been offered to customers for decades to address the customer's need to organize and support tools at the top end of a ladder. There has been, and continues to be, a long-felt need in the marketplace for such tool support options.

15. Although many of these tool support solutions are offered for various purposes, most apply to step ladders with top caps and remarkably few solutions have been devised to support tools from the top of a multi-position/articulating ladder (*e.g.*, the Little Giant 1A 22 or other multi-position ladders²⁴). Storage and support of tools at the top ends of those types of ladders has been a more difficult need to meet, where ladder designers typically leave only rungs and hinge components. Ladder makers have tended to eschew modification of parts such as rungs and hinge components due to safety and reliability concerns. Little Giant has developed solutions such as the Cargo Hold²⁵ tool holder accessory or trays/platforms that extend between the rails and rungs of a multi-position/articulating ladder. However, there has remained a need for tool hanging options at the top of multi-position articulating ladders that would not take up the space between the rails along the rungs as do solutions such as cargo trays and tool bags. Until the developments disclosed in the present application, this need remained unfulfilled. Despite my years of experience, I have no knowledge, beyond information already provided to

²⁴ Website for "Multi-Position Ladders," Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/collections/multi-position-ladder>

²⁵ Website for "Cargo Hold," Little Giant Ladder Systems LLC, accessed 17 June 2024, available at <https://www.littlegiantladders.com/products/cargo-hold-ladder-tool-holder>

the United States Patent and Trademark Office, of any other ladder manufacturer attempting to adapt and use the hinge assembly and/or hinge buttons on multi-position articulating ladders for the purpose of hanging or storage of tools prior to the development of our invention. To my knowledge, at the time of the filing of the present application, only other types of storage solutions have been attempted by Little Giant and other ladder makers.

16. NON-OBVIOUS INVENTION

17. Adding tool-hanging capabilities to hinge buttons was not a simple or obvious exercise, even for those of us skilled in the art of the mechanics of ladders. For example, the inventions claimed in the present application required substantial development resources. We had to identify a broad list of relevant use cases, develop project goals, iterate on the design, test five prototypes, and consult with manufacturing partners multiple times. In all, the project required over a year's worth of product development which included design, prototyping, and testing from inception to confidentially sending out engineering drawings to begin manufacturing. I affirm that the development of the inventions of the claims of the present application would not have been an obvious, simple, or routine exercise to a person having ordinary skill in the art.

18. COPYING AND/OR NEAR SIMULTANEOUS INVENTION

19. Finally, I attest to the non-obviousness of the invention of the present application in view of copying and/or contemporaneous invention by at least one of Little Giant's competitors.

20. Little Giant confidentially sent engineering drawings to, and had confidential manufacturing discussions with, at least two manufacturing vendors in China

in May of 2022. Little Giant selected one of the vendors as our manufacturing partner, and they started tooling the design in July 2022.

21. The concept was then confidentially pitched to a major retail partner of ours in the summer/early fall of 2022, and a confidential sample was provided to them in or about February 2023.

22. On 19 May 2023, Brian Russell, a Little Giant engineer, visited the manufacturing vendor in China to which we had previously shown our invention and that we had not selected as our partner for this project. Mr. Russell reported to me that he observed a competing button for a tool hanging product that was being produced by that manufacturing partner for a competitor of ours, Tricam Industries (“Tricam”). The product being produced included a slot on a hinge button/handle for hanging tools. I thus became aware of a competitor copying features of our design, apparently because they received access to the confidential disclosure we provided to our non-selected manufacturing partner.

23. Shortly thereafter, I observed the competing hinge button product being sold in Home Depot Stores and marketed by Tricam as the Gorilla Ladders “GMPXA-14 14 FT. REACH MPXA ALUMINUM MULTI-POSITION LADDER WITH INTEGRATED TOOL HANGERS²⁶.” I also accessed a promotional image of the product on the Tricam website prior to the filing 19 October 2023 filing date of the present application, which appeared as shown below.

²⁶ Website for “14 FT. REACH MPXA ALUMINUM MULTI-POSITION LADDER WITH INTEGRATED TOOL HANGERS, 300 LBS. LOAD CAPACITY,” Gorilla, accessed 17 June 2024, available at <https://gorillamade.com/product/gmpxa-14/>



Image of the GMPXA-14 ladder marketing materials promoting “Tool Hangers” on hinge buttons

24. Multi-position/articulating ladders have been on the market for decades, and tool hanging solutions for ladders have been on the market for decades, yet substantially immediately after our disclosure to a manufacturing partner, one of our main competitors started producing a product located on a ladder hinge button and serving the purpose of hanging tools. Thus, based on my knowledge of the facts, timing, and

circumstances surrounding Little Giant's development and disclosure of features of our invention, the Tricam "integrated tool hangers" are evidence of copying of our concept by a competitor, or are at least evidence of near-simultaneous invention, both of which establish the non-obviousness of the claims of the present application.

25. In my professional opinion, the absence of any solutions for hinge button tool hanging, followed by immediate copying of the idea by a Little Giant competitor upon apparently receiving access to our concept, shows without question that the inventions of our claims were not obvious at the time the application was filed.

26. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.

Date: 24/06/2024



N. Ryan Moss
CEO
Little Giant Ladder Systems, LLC

P298048.US.03_506318-576 Declaration - N. Ryan Moss

Final Audit Report

2024-06-24

Created:	2024-06-24
By:	Kathy Patton (kathy@ladders.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAACG2_XYNVgu228RmiM_7oRykTDJIWUQZ

"P298048.US.03_506318-576 Declaration - N. Ryan Moss" History

-  Document created by Kathy Patton (kathy@ladders.com)
2024-06-24 - 3:26:35 PM GMT
-  Document emailed to Ryan Moss (ryan@ladders.com) for signature
2024-06-24 - 3:28:41 PM GMT
-  Email viewed by Ryan Moss (ryan@ladders.com)
2024-06-24 - 3:40:53 PM GMT
-  Document e-signed by Ryan Moss (ryan@ladders.com)
Signature Date: 2024-06-24 - 3:43:47 PM GMT - Time Source: server
-  Agreement completed.
2024-06-24 - 3:43:47 PM GMT