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**United States Patent** [19]

Weller

[11] **Patent Number:** 5,350,271[45] **Date of Patent:** Sep. 27, 1994[54] **AUTOMOBILE LIFTING AND TOWING EQUIPMENT**[76] **Inventor:** Peter J. Weller, 2006 Curtis Ave., Redondo Beach, Calif. 90278[21] **Appl. No.:** 816,177[22] **Filed:** Jan. 2, 1992[51] **Int. Cl.<sup>5</sup>** ..... B60P 3/12[52] **U.S. Cl.** ..... 414/563; 280/402[58] **Field of Search** ..... 414/563, 426, 428; 280/402[56] **References Cited****U.S. PATENT DOCUMENTS**

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*Assistant Examiner*—James T. Eller, Jr.  
*Attorney, Agent, or Firm*—Merchant, Gould, Smith, Edell, Welter & Schmidt[57] **ABSTRACT**

A system for securing the wheels of a vehicle to be towed to the cross-arm of a wheel-lift tow truck. This system is operated automatically. In the retracted position, it is compact against the cross-arm. When extended, it provides an effective retention system for securing the wheels. It allows for the use of a telescopic stinger and therefore minimizes the detrimental effect of a rearwardly suspended load on the weight distribution of the tow truck, since it can be retracted as far as space will allow to bring the towed vehicle as close as possible to the tow truck. This wheel-lift cross-arm system can be used with any stinger configuration and can be used on combination tow trucks having both recovery booms/sling systems and wheel-lift systems. It can be retrofitted to tow trucks already in use and can be used as part of a conversion system for pickup trucks and other trucks with existing beds.

18 Claims, 12 Drawing Sheets

