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Anderson

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(54) **SUPPORT POLE WITH PIPE-HINGE SLIDE LOCK**

(76) Inventor: **Charles H. Anderson**, 8 Old Wakefield Rd., Rochester, NH (US) 03868

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

57,656 A * 9/1866 Alden 403/93
2,577,811 A * 12/1951 Rutledge 403/102
2,895,757 A * 7/1959 Kaspar 403/100
3,696,792 A * 10/1972 Bruhns 119/432
3,744,503 A * 7/1973 Wolff et al. 135/20.3

3,792,680 A * 2/1974 Allen 116/173
3,850,186 A * 11/1974 Weber et al. 135/20.3
4,819,584 A * 4/1989 Rozumek 119/51.01
5,086,797 A * 2/1992 Earnshaw et al. 135/20.1
5,524,505 A * 6/1996 Lawrence 74/544
5,572,836 A * 11/1996 Parker 52/116
5,974,731 A * 11/1999 Wesolowski 47/48.5
6,164,803 A * 12/2000 Reniger et al. 362/477
6,439,158 B1 * 8/2002 Blohm 119/57.8
6,647,920 B2 * 11/2003 Lovett 119/52.2
2003/0136346 A1 * 7/2003 Lovett 119/52.2
2004/0177871 A1 * 9/2004 Harbaugh 135/20.1

OTHER PUBLICATIONS

The Backyard Bird Company, *15' Telescoping Purple Martin House Pole* (visited Oct. 25, 2004) <<http://www.backyardbird.com/15telpurmarh.html>>.

(Continued)

Primary Examiner—Francis T. Palo

(74) *Attorney, Agent, or Firm*—McLane, Graf, Raulerson & Middleton, P.A.

(57) **ABSTRACT**

A self-latching hinge mechanism (14) and apparatus (10) for applications where access to a pole mounted device is required. The hinge comprises a top section (28) with a cantilevered tail piece (38) which extends beyond a pivot (36) connected at the top (40) of a lower section (30). A latch consists of an encircling slide (32) which binds the tail piece (38) to the lower part of the pivot section (30) when in the lowered, locked position and allows the top section piece (28) to rotate relative to the lower section (30).

16 Claims, 7 Drawing Sheets

