

US010309097B2

# (12) United States Patent

# (10) Patent No.: US 10,309,097 B2

# (45) **Date of Patent:** Jun. 4, 2019

# (54) ADJUSTABLE TIE ASSEMBLY FOR STRUCTURAL MEMBERS

(71) Applicant: Oz-Post International, LLC,

Richardson, TX (US)

(72) Inventor: Ian A. Hill, Plano, TX (US)

(73) Assignee: Oz-Post International, LLC,

Richardson, TX (US)

(\*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 15/792,229

(22) Filed: Oct. 24, 2017

#### (65) Prior Publication Data

US 2019/0119905 A1 Apr. 25, 2019

(51) Int. Cl.

E04B 1/19 (2006.01)

E04B 1/41 (2006.01)

E04F 10/08 (2006.01)

E04B 1/26 (2006.01)

A47G 29/00 (2006.01)

A47G 23/02 (2006.01)

E04B 1/32 (2006.01)

(52) U.S. Cl.

# (58) Field of Classification Search

CPC .... E04B 1/40; E04B 2001/405; E04B 1/1903; E04B 2001/2403; E04B 1/2608; E04B 1/32; E04B 2001/2644; E04B 2001/2415; E04G 23/02; A47G 29/00; A47G 213/0216; A47G 23/0266 

#### (56) References Cited

## U.S. PATENT DOCUMENTS

3,885,084 A	* 5/1975	Kaiserswerth H05K 9/0016
		174/371
4,075,811 A	* 2/1978	Keith E04B 7/22
4.722.096 A	* 2/1000	52/395 Kanaina E04D 1/5813
4,733,986 A	3/1988	Kenning E04B 1/5812 403/306
4 833 853 A	* 5/1989	Deibele E04D 5/142
1,055,055 11	5, 15 65	52/410
5,003,743 A	* 4/1991	Bifano E04F 13/06
		52/288.1
5,573,354 A	* 11/1996	Koch E02D 5/60
		405/216
6,023,899 A	* 2/2000	Mecozzi E04B 1/617
52/396.04		
(Continued)		

(Continued)

Primary Examiner — Beth A Stephan (74) Attorney, Agent, or Firm — Foley & Lardner LLP

### (57) ABSTRACT

In an embodiment, an assembly includes a first plate comprising a first primary portion and a first flange disposed orthogonally to the first primary portion. The first primary portion is configured to contact a first structural member and the first flange defining a first through hole. A second plate comprises a second primary portion and a second flange disposed orthogonally to the second primary portion. The second primary portion is configured to contact a second structural member and the second flange defines a second through hole. A cover receives the first and second flanges. A bolt is received through the first through hole, and tightening the bolt tends to draw the second plate towards the first plate.

### 13 Claims, 9 Drawing Sheets

