

#### (12) United States Design Patent **US D672,717 S** (10) Patent No.: **\*\* Dec. 18, 2012** (45) **Date of Patent:** Nagata

#### **ELECTRICAL CONNECTOR** (54)

- Takayuki Nagata, Yao (JP) (75)Inventor:
- Assignee: Hosiden Corporation, Yao-shi (JP) (73)
- (\*\*)14 Years Γerm:
- Appl. No.: 29/415,064 (21)

#### OTHER PUBLICATIONS

Notification for Reasons for Refusal received from the Japanese Patent Office in related application No. 2011-020661 dated Jun. 26, 2012 with English translation (7 pages).

\* cited by examiner

Primary Examiner — Daniel Bui (74) Attorney, Agent, or Firm — Kratz, Quintos & Hanson, LLP

(22)Filed: Mar. 7, 2012

#### **Foreign Application Priority Data** (30)

Sep. 12, 2011 

- LOC (9) Cl. ..... 13-03 (51)
- (52)
- Field of Classification Search ...... D13/133, (58)D13/147, 154, 184; 439/188, 278, 374, 378, 439/380, 527, 533, 607.01, 607.04, 607.05, 439/607.17, 607.25, 607.34, 607.41, 607.53, 439/668, 540.1, 541.5, 660, 892, 894, 939 See application file for complete search history.

(56)**References** Cited

#### U.S. PATENT DOCUMENTS

D431,528	S	*	10/2000	Zhu et al D13/133
D451,472	S	*	12/2001	Suzuki D13/133
D459,303	S	*	6/2002	Florescu D13/133
D470,107	S	*	2/2003	Li et al D13/133
D507,531	S	*	7/2005	Suzuki D13/133
D533,504	S	*	12/2006	Lee D13/133
D555,098	S		11/2007	Wu et al D13/133
D617,271	S	*	6/2010	Chiang D13/133
D632,251	S	*	2/2011	Chen D13/147
D632,253	S	*	2/2011	Su et al D13/147
D641,320	S	*	7/2011	Huang D13/133
2011/0300756	Al	*	12/2011	Zhang 439/625

#### (57)CLAIM The ornamental design for an electrical connector, as shown and described.

#### DESCRIPTION

FIG. 1 is a front elevational view of an electrical connector showing my new invention. FIG. 2 is a back elevational view thereof; FIG. 3 is a top plan view thereof; FIG. **4** is a bottom plan view thereof; FIG. 5 is a right side elevational view thereof; FIG. 6 is a left side elevational view thereof; FIG. 7 is a top, front, and right side perspective view thereof; FIG. 8 is a top, back, and left side perspective view thereof; FIG. 9 is a bottom, front, and right side perspective view thereof; FIG. 10 is a bottom, back and left side perspective view thereof; FIG. 11 is a cross-sectional view thereof, taken along the line **11-11** of FIG. **1**;

FIG. 12 is a cross-sectional view thereof, taken along the line **12-12** of FIG. **1**;

FIG. 13 is a cross-sectional view thereof, taken along the line **13-13** of FIG. **1**; and,

FIG. 14 is a cross-sectional view thereof, taken along the line 14-14 of FIG. 1.

The broken line portion of the figure drawings is included to show unclaimed subject matter only and forms no part of the claimed description.

#### 1 Claim, 14 Drawing Sheets



#### **U.S. Patent** US D672,717 S Dec. 18, 2012 Sheet 1 of 14





## U.S. Patent Dec. 18, 2012 Sheet 2 of 14 US D672,717 S





## U.S. Patent Dec. 18, 2012 Sheet 3 of 14 US D672,717 S







#### U.S. Patent Dec. 18, 2012 Sheet 4 of 14 US D672,717 S





## U.S. Patent Dec. 18, 2012 Sheet 5 of 14 US D672,717 S



## U.S. Patent Dec. 18, 2012 Sheet 6 of 14 US D672,717 S



## U.S. Patent Dec. 18, 2012 Sheet 7 of 14 US D672,717 S



## U.S. Patent Dec. 18, 2012 Sheet 8 of 14 US D672,717 S



## U.S. Patent Dec. 18, 2012 Sheet 9 of 14 US D672,717 S



## U.S. Patent Dec. 18, 2012 Sheet 10 of 14 US D672,717 S



## U.S. Patent Dec. 18, 2012 Sheet 11 of 14 US D672,717 S





## U.S. Patent Dec. 18, 2012 Sheet 12 of 14 US D672,717 S



#### **U.S. Patent** US D672,717 S Dec. 18, 2012 **Sheet 13 of 14**





#### U.S. Patent Dec. 18, 2012 Sheet 14 of 14 US D672,717 S

