



US00D586336S

(12) **United States Design Patent**
Oliver

(10) **Patent No.:** **US D586,336 S**
(45) **Date of Patent:** **** Feb. 10, 2009**

(54) **RADIO FREQUENCY IDENTIFICATION TAG ANTENNA ASSEMBLY**

(75) Inventor: **Ronald A. Oliver**, Seattle, WA (US)

(73) Assignee: **Impinj, Inc.**, Seattle, WA (US)

(**) Term: **14 Years**

(21) Appl. No.: **29/220,496**

(22) Filed: **Dec. 30, 2004**

(51) **LOC (9) Cl.** **14-03**

(52) **U.S. Cl.** **D14/230**

(58) **Field of Classification Search** D14/138,
D14/230-238, 299, 358; D12/42, 43; 343/700 MS,
343/700 R-705, 711-713, 741, 748, 767,
343/795, 819, 840, 846, 866, 871-908; 455/90.2,
455/90.3, 91, 128, 269, 344, 347, 562.1
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,315,272	A	2/1982	Vorhaus
4,479,260	A	10/1984	Harrop
4,611,184	A	9/1986	Kumar
4,783,783	A	11/1988	Nagai et al.
4,864,314	A	9/1989	Bond
4,935,702	A	6/1990	Mead et al.
5,068,668	A	11/1991	Tsuda et al.
5,075,691	A	12/1991	Garay et al.
5,280,286	A	1/1994	Williamson

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0 298 618	6/1988
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(Continued)

OTHER PUBLICATIONS

Invitation to Pay Additional Fees (Partial Int'l. Search), Application No. PCT/US 03/31792, date of mailing Apr. 22, 2004.

(Continued)

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(57) **CLAIM**

The ornamental design for a conductor in a radio frequency identification tag antenna assembly, as shown and described.

DESCRIPTION

The present application may also be considered to be related to co-pending U.S. Design patent application Ser. No. 29/220, 504 filed Dec. 30, 2004, in the name of inventor Ronald A. Oliver, entitled "Radio Frequency Identification Tag Antenna Assembly", commonly owned herewith.

The present application may also be considered to be related to co-pending U.S. Design patent application Ser. No. 29/220, 493 filed Dec. 30, 2004, in the name of inventor Ronald A. Oliver, entitled "Radio Frequency Identification Tag Antenna Assembly", commonly owned herewith.

FIG. 1 is a top plan view of a radio frequency identification tag antenna assembly showing our new design, the bottom being flat;

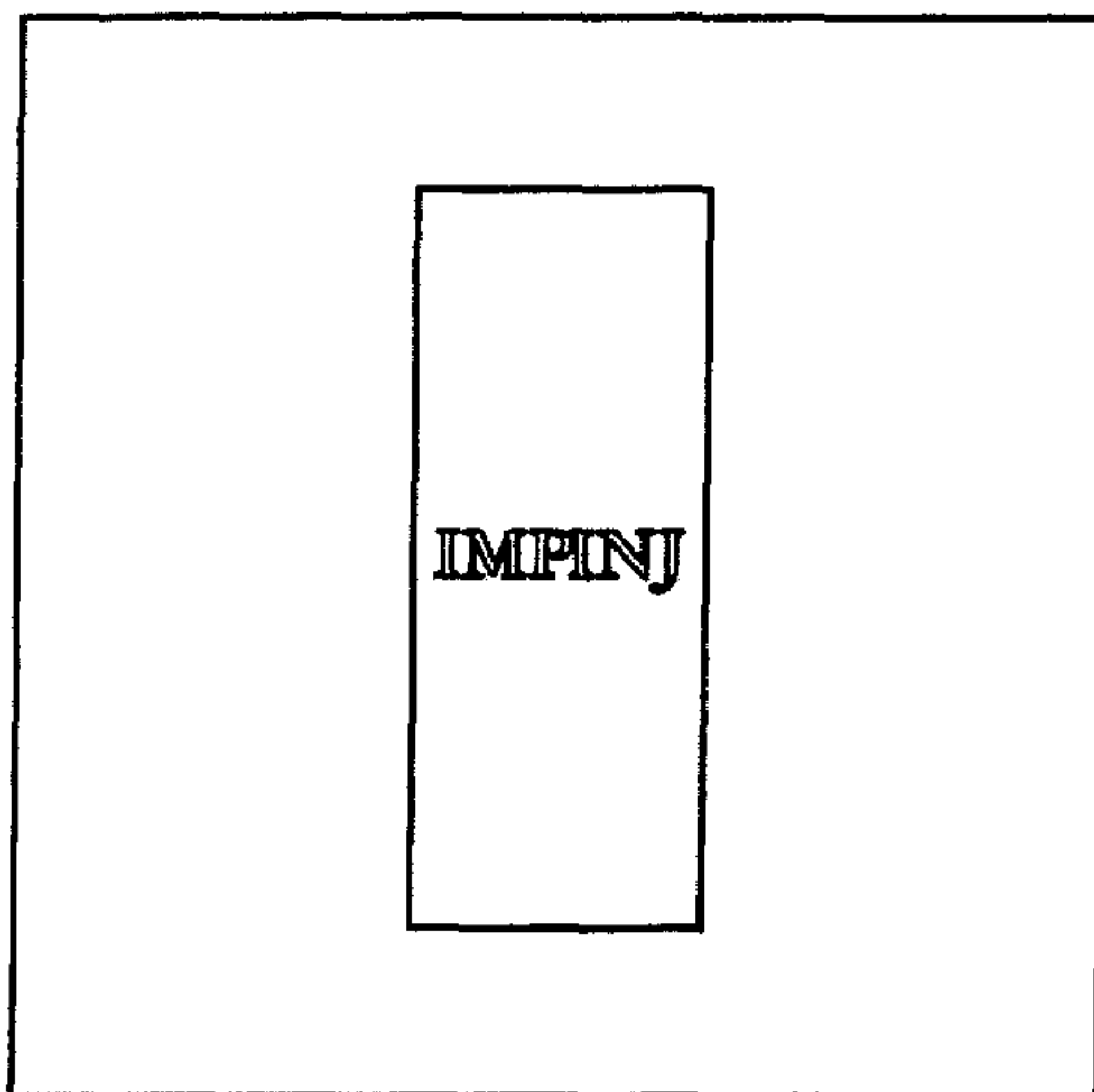
FIG. 2 is a left side elevation view thereof, the right side elevation view being a mirror image thereof;

FIG. 3 is a front elevation view thereof, the rear elevation view being a mirror image thereof; and,

FIG. 4 is a front perspective view thereof.

"Impinj" is a registered trademark of Impinj, Inc.

1 Claim, 2 Drawing Sheets



U.S. PATENT DOCUMENTS

5,528,222 A 6/1996 Moskowitz et al.
 5,572,226 A 11/1996 Tuttle
 5,719,586 A 2/1998 Tuttle
 5,805,632 A 9/1998 Leger
 5,825,329 A 10/1998 Veghte et al.
 5,923,300 A 7/1999 Mejia
 5,929,760 A 7/1999 Monahan
 5,933,039 A 8/1999 Hui et al.
 5,939,945 A 8/1999 Thewes et al.
 5,995,048 A 11/1999 Smithgall et al.
 6,005,529 A 12/1999 Hutchinson
 6,025,784 A 2/2000 Mish
 6,043,746 A 3/2000 Sorrells
 6,045,652 A 4/2000 Tuttle et al.
 6,069,564 A 5/2000 Hatano et al.
 6,097,345 A 8/2000 Walton
 6,118,379 A 9/2000 Kodukula et al.
 6,130,570 A 10/2000 Pan et al.
 6,130,612 A 10/2000 Castellano et al.
 6,130,632 A 10/2000 Castellano et al.
 6,134,182 A 10/2000 Pilo et al.
 6,147,605 A 11/2000 Vega et al.
 6,147,655 A 11/2000 Roesner
 6,166,706 A 12/2000 Gallagher, III et al.
 6,184,841 B1 2/2001 Shober et al.
 6,215,402 B1 4/2001 Rao Kodukula et al.
 6,266,362 B1 7/2001 Tuttle et al.
 6,268,796 B1 7/2001 Gnadinger et al.
 6,271,793 B1 8/2001 Brady et al.
 6,320,788 B1 11/2001 Sansbury et al.
 6,340,932 B1 1/2002 Rodgers et al.
 6,346,922 B1 2/2002 Proctor et al.
 6,357,025 B1 3/2002 Tuttle
 6,366,260 B1 4/2002 Carrender
 6,396,438 B1 5/2002 Seal
 6,445,297 B1 9/2002 Nicholson
 6,517,000 B1 2/2003 McAllister et al.
 6,571,617 B2 6/2003 Van Niekerk et al.
 6,677,917 B2 1/2004 Van Heerden et al.
 6,700,491 B2 3/2004 Shafer
 6,701,605 B2 3/2004 Huffer et al.
 6,717,923 B1 4/2004 Smith
 6,720,930 B2 4/2004 Johnson et al.
 D492,670 S 7/2004 Hung et al.
 D493,446 S 7/2004 Hung et al.
 6,830,193 B2 12/2004 Tanaka
 6,885,344 B2 4/2005 Mohamadi
 7,005,968 B1 2/2006 Bridgelall
 7,030,786 B2 4/2006 Kaplan et al.
 7,123,171 B2 10/2006 Kaplan et al.
 2001/0043162 A1 11/2001 Babb
 2002/0067315 A1 6/2002 Kunysz
 2002/0075184 A1 6/2002 Tuttle
 2002/0109636 A1 8/2002 Johnson et al.
 2002/0126057 A1 9/2002 King et al.
 2002/0167405 A1 11/2002 Shanks et al.
 2003/0090313 A1 5/2003 Burgener et al.
 2003/0184495 A1 10/2003 Tomon

2004/0001024 A1 1/2004 Killen et al.
 2004/0075616 A1 4/2004 Endo et al.
 2004/0113746 A1 6/2004 Brindle
 2004/0125023 A1 7/2004 Fujii et al.
 2004/0183743 A1 9/2004 Reasoner et al.
 2005/0024186 A1 2/2005 Friedrich
 2005/0028032 A1 2/2005 Klein
 2005/0104778 A1* 5/2005 Choi et al. 343/700 MS
 2005/0104789 A1 5/2005 Hashidate et al.
 2005/0104793 A1 5/2005 Yuanzhu
 2005/0104795 A1* 5/2005 Voigtlaender 343/795
 2005/0104797 A1 5/2005 McCollum
 2005/0110680 A1* 5/2005 Tanaka et al. 343/700 MS
 2005/0113861 A1* 5/2005 Corcoran et al. 606/200
 2005/0113862 A1* 5/2005 Besselink et al. 606/200
 2005/0116867 A1* 6/2005 Park et al. 343/725
 2005/0134460 A1 6/2005 Usami
 2005/0190111 A1 9/2005 King et al.
 2005/0227631 A1 10/2005 Robinett
 2005/0259030 A1 11/2005 Mizuno et al.
 2005/0270185 A1 12/2005 Esterberg
 2005/0270189 A1 12/2005 Kaplan et al.
 2006/0028379 A1 2/2006 Oberle
 2006/0038725 A1 2/2006 Tikhov et al.
 2006/0038730 A1 2/2006 Parsche
 2006/0044192 A1 3/2006 Egbert
 2006/0055620 A1 3/2006 Oliver et al.
 2006/0139223 A1 6/2006 Li et al.
 2006/0145926 A1 7/2006 Choi et al.
 2006/0208897 A1 9/2006 Chiu et al.
 2006/0208900 A1 9/2006 Tavassoli Hozouri
 2006/0244676 A1 11/2006 Uesaka
 2006/0262023 A1 11/2006 Engargiola et al.
 2007/0024446 A1 2/2007 Hyde et al.
 2007/0103379 A1 5/2007 Garby et al.
 2007/0152901 A1 7/2007 Hockey et al.

FOREIGN PATENT DOCUMENTS

EP 0 435 137 7/1991
 WO 01/73854 1/2001

OTHER PUBLICATIONS

Carley, L. Richard, "Trimming Analog Circuits Using Floating Gate Analog MOS Memory", IEEE Journal of Solid-State Circuits, vol. 24, No. 6, Dec. 1989, pp. 1569-1575.
 Joneitz, Erika, "Tracking Privacy", Technology Review, Jul./Aug. 2004, pp. 74-75.
 Raszka et al., "Embedded Flash Memory for Security Applications in a 0.13 μm CMOS Logic Process", Digest of Technical Papers, IEEE International Solid-State Circuits Conference 2004, p. 46.
 Weis, Stephen A., et al., Security and Privacy Aspects of Low-Cost Radio Frequency Identification Systems, Laboratory for Computer Science, Auto-ID Center, Massachusetts Institute of Technology, pp. 1-12.
 Yoshida, Junko, "RFID "kill" Feature Aims to Soothe Privacy Fears", EE Times, Apr. 28, 2003, pp. 1, 86.
 International Search Report, for International Application No. PCT/US2005/009955, date mailed Jul. 12, 2005.

* cited by examiner

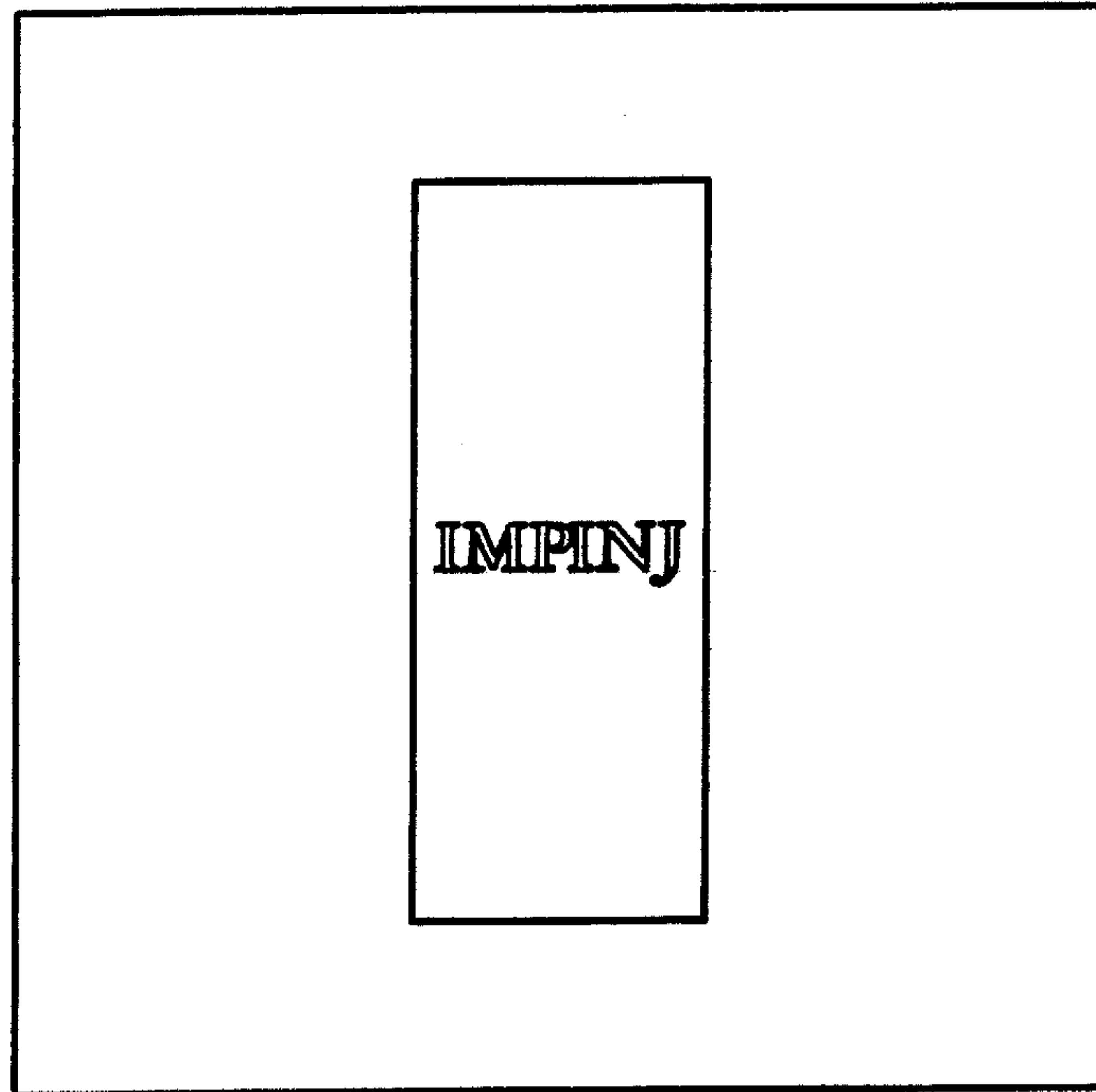


FIG. 1

FIG. 2

FIG. 3

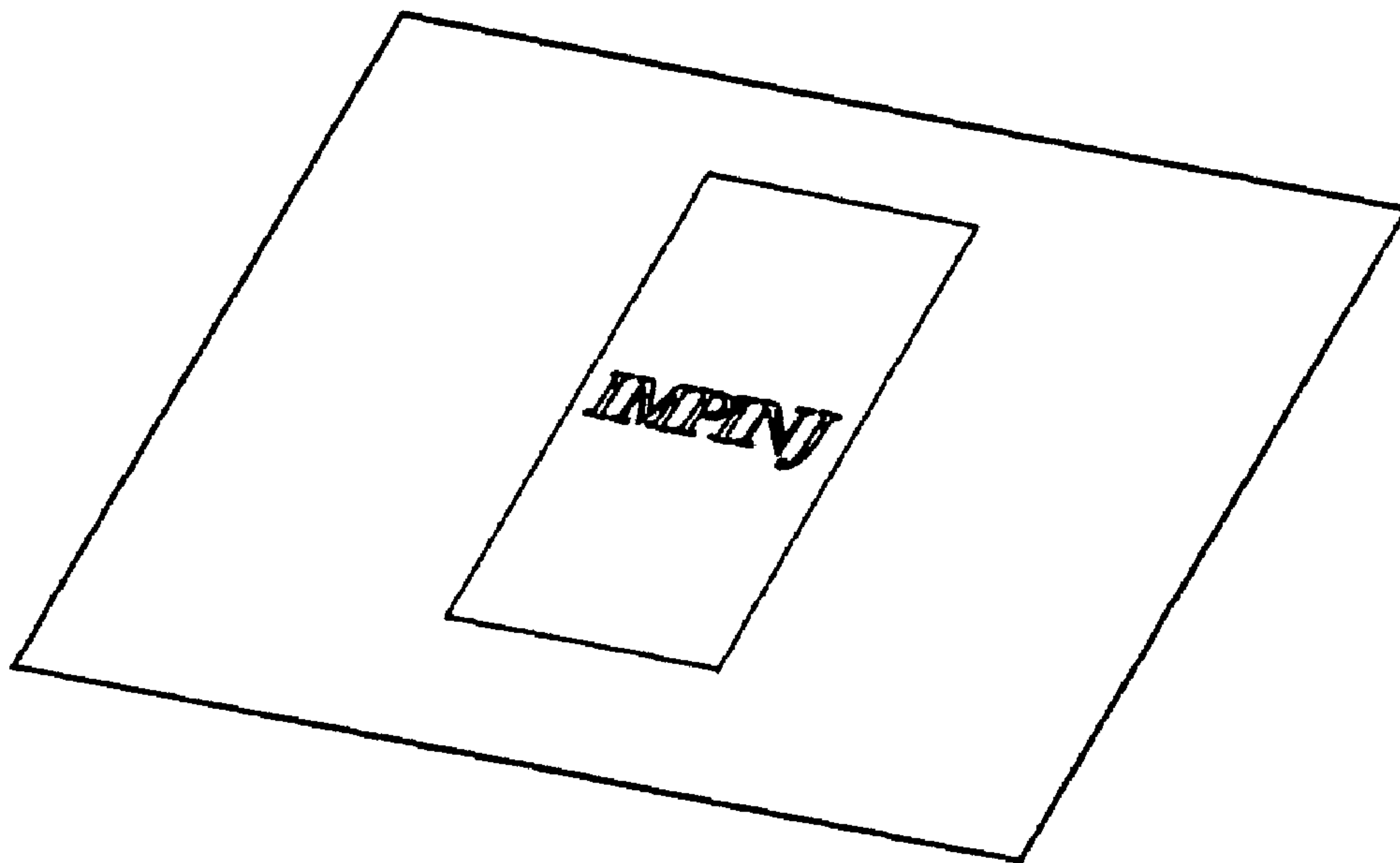


FIG. 4

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : Des. 586,336 S
APPLICATION NO. : 29/220496
DATED : February 10, 2009
INVENTOR(S) : Ronald A. Oliver

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page item [54] and Col. 1, line 5 delete title "RADIO FREQUENCY IDENTIFICATION TAG ANTENNA ASSEMBLY" and insert --CONDUCTOR FOR RADIO FREQUENCY IDENTIFICATION TAG ANTENNA ASSEMBLY--.

Please delete "Embedded" after "Raszka et al." on page 2, column 2, in section "OTHER PUBLICATIONS" and insert --Embedded--.

Please delete "Privacy" after "Aims to Soothe" on page 2, column 2, in section "OTHER PUBLICATIONS" and insert --Privacy--.

Signed and Sealed this

Twenty-seventh Day of October, 2009



David J. Kappos
Director of the United States Patent and Trademark Office