



US006853303B2

(12) **United States Patent**
Chen et al.

(10) **Patent No.:** **US 6,853,303 B2**
(45) **Date of Patent:** **Feb. 8, 2005**

(54) **RFID SYSTEM AND METHOD FOR ENSURING PERSONNEL SAFETY**

(75) Inventors: **Fung-Jou Chen**, Appleton, WI (US);
Walter C. Reade, Appleton, WI (US);
Jeffrey Dean Lindsay, Appleton, WI (US)

(73) Assignee: **Kimberly-Clark Worldwide, Inc.**,
Neenah, WI (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 76 days.

| | | | |
|-----------|----|---------|-----------------|
| 6,195,006 | B1 | 2/2001 | Bowers et al. |
| 6,218,979 | B1 | 4/2001 | Barnes et al. |
| 6,226,619 | B1 | 5/2001 | Halperin et al. |
| 6,249,227 | B1 | 6/2001 | Brady et al. |
| 6,294,997 | B1 | 9/2001 | Paratore et al. |
| 6,354,493 | B1 | 3/2002 | Mon |
| 6,386,450 | B1 | 5/2002 | Ogasawara |
| 6,407,665 | B2 | 6/2002 | Maloney |
| 6,429,768 | B1 | 8/2002 | Flick |
| 6,435,407 | B1 | 8/2002 | Fiordelisi |
| 6,446,049 | B1 | 9/2002 | Janning et al. |
| 6,451,154 | B1 | 9/2002 | Grabau et al. |
| 6,491,217 | B2 | 12/2002 | Catan |

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

| | | |
|----|--------------|---------|
| DE | 29714999 | 11/1997 |
| DE | 19742126 | 3/1999 |
| WO | 0065532 | 11/2000 |
| WO | 0169429 | 9/2001 |
| WO | 0215073 A1 | 2/2002 |
| WO | WO 02/15073 | 2/2002 |
| WO | 0248955 A1 | 6/2002 |
| WO | WO 02/080060 | 10/2002 |

OTHER PUBLICATIONS

Advertisement—www.mobilecloak.com—mCloak—RFID
Tolltags etc., Copyrighted—2002.

(List continued on next page.)

Primary Examiner—Thomas Mullen

(74) *Attorney, Agent, or Firm*—Dority & Manning

(57) **ABSTRACT**

A RFID method and system are provided for ensuring that personnel are properly outfitted with necessary equipment for performance of a particular task or procedure. RFID smart tags are configured with the required pieces of equipment, the smart tags containing information to identify their respective pieces of equipment. A RFID scanner is disposed at a location through which an individual passes prior to performance of the procedure. The scanner interrogates the smart tags and determines if the individual has all of the required pieces of equipment.

35 Claims, 3 Drawing Sheets

(21) Appl. No.: **10/301,877**

(22) Filed: **Nov. 21, 2002**

(65) **Prior Publication Data**

US 2004/0100384 A1 May 27, 2004

(51) **Int. Cl.**⁷ **G08B 23/00**

(52) **U.S. Cl.** **340/573.1; 340/5.7; 340/572.1**

(58) **Field of Search** **340/573.1, 572.1, 340/679, 541, 5.2, 5.7; 235/375, 487**

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | | | | |
|-----------|----|---|---------|------------------|-------|-----------|
| 4,656,463 | A | * | 4/1987 | Anders et al. | | 340/573.4 |
| 5,047,614 | A | | 9/1991 | Bianco | | |
| 5,164,707 | A | * | 11/1992 | Rasmussen et al. | | 340/551 |
| 5,361,070 | A | | 11/1994 | McEwan | | |
| 5,380,991 | A | | 1/1995 | Valencia et al. | | |
| 5,677,927 | A | | 10/1997 | Fullerton et al. | | |
| 5,687,169 | A | | 11/1997 | Fullerton | | |
| 5,711,160 | A | | 1/1998 | Namisniak et al. | | |
| 5,727,153 | A | | 3/1998 | Powell | | |
| 5,798,694 | A | | 8/1998 | Reber et al. | | |
| 5,832,035 | A | | 11/1998 | Fullerton | | |
| 5,942,977 | A | | 8/1999 | Palmer et al. | | |
| 5,955,969 | A | | 9/1999 | D'Hont | | |
| 5,990,794 | A | | 11/1999 | Alicot et al. | | |
| 6,037,879 | A | | 3/2000 | Tuttle | | |
| 6,177,903 | B1 | | 1/2001 | Fullerton et al. | | |

