

US007753705B2

# (12) United States Patent

## Montena

### (54) FLEXIBLE RF SEAL FOR COAXIAL CABLE CONNECTOR

- (75) Inventor: Noah Montena, Syracuse, NY (US)
- (73) Assignee: John Mezzalingua Assoc., Inc., E. Syracuse, NY (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.: 12/140,573
- (22) Filed: Jun. 17, 2008
- (65) **Prior Publication Data**

US 2008/0248689 A1 Oct. 9, 2008

### **Related U.S. Application Data**

- (63) Continuation of application No. 11/553,115, filed on Oct. 26, 2006, now abandoned.
- (51) Int. Cl.
- *H01R 13/52* (2006.01)
- (58) Field of Classification Search ...... 439/277,

439/271, 583, 584, 578, 322 See application file for complete search history.

### (56) References Cited

### U.S. PATENT DOCUMENTS

3,184,706 A	* 5/1965	Atkins 439/584
3,321,732 A	* 5/1967	Forney, Jr 439/322
3,336,563 A	8/1967	Hyslop
3,448,430 A	* 6/1969	Kelly 439/610
3,537,065 A	* 10/1970	Winston 439/584
3,646,502 A	* 2/1972	Hutter et al 439/322
3,706,958 A	12/1972	Blanchenot
3,744,011 A	* 7/1973	Blanchenot 439/584
3,781,762 A	* 12/1973	Quackenbush 439/322

12

# (10) Patent No.: US 7,753,705 B2

### (45) **Date of Patent:** Jul. 13, 2010

4,173,385	A *	11/1979	Fenn et al 439/277
4,290,663	A *	9/1981	Fowler et al 439/610
4,531,805	A *	7/1985	Werth 439/607
4,655,534	A *	4/1987	Stursa 439/582
4,807,891	A *	2/1989	Neher 277/392
5,137,471	Α	8/1992	Verespej et al.
5,389,005	A *	2/1995	Kodama 439/272
6,331,123	B1	12/2001	Rodrigues
6,406,330	B2 *	6/2002	Bruce 439/609
6,733,336	B1	5/2004	Montena et al.
6,884,113	B1	4/2005	Montena
6,929,508	B1	8/2005	Holland
7,070,447	B1 *	7/2006	Montena 439/578
7,086,897	B2	8/2006	Montena
7,097,499	B1	8/2006	Purdy
7,131,868	B2	11/2006	Montena
7,156,696	B1 *	1/2007	Montena 439/584
2002/0013088	A1	1/2002	Rodrigues et al.
2005/0148236	A1*	7/2005	Montena 439/578
2006/0110977	A1*	5/2006	Matthews 439/578
2006/0172571	A1	8/2006	Montena

\* cited by examiner

Primary Examiner—Michael C Zarroli Assistant Examiner—Vladimir Imas (74) Attorney, Agent, or Firm—Melissa Bitting

### (57) ABSTRACT

The present invention incorporates a flexible seal into a typical coaxial cable connector. The seal comprises a flexible brim, a transition band, and a tubular insert with an insert chamber defined within the seal. In a first embodiment the flexible brim is angled away from the insert chamber, and in a second embodiment the flexible brim is angled inward toward the insert chamber. A flange end of the seal makes a compliant contact between the port and connector faces when the nut of a connector is partially tightened, and becomes sandwiched firmly between the ground surfaces when the nut is properly tightened. The present invention allows the connector to make a uniform RF seal on a port even with a range of tightening torques.

### 10 Claims, 4 Drawing Sheets

PPC Exhibit 2011 Corning v. PPC IPR2016-01569

10

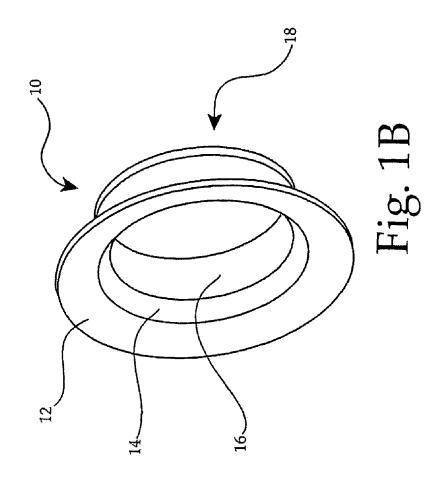
Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

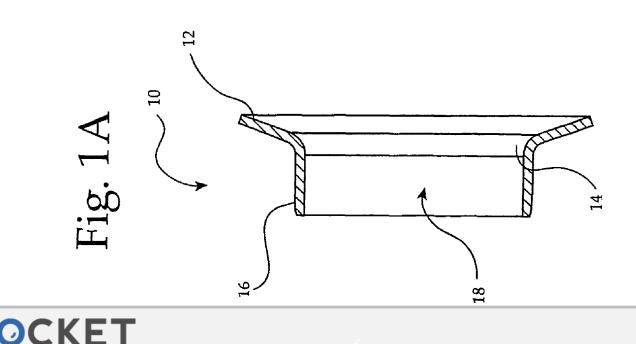
D

Α

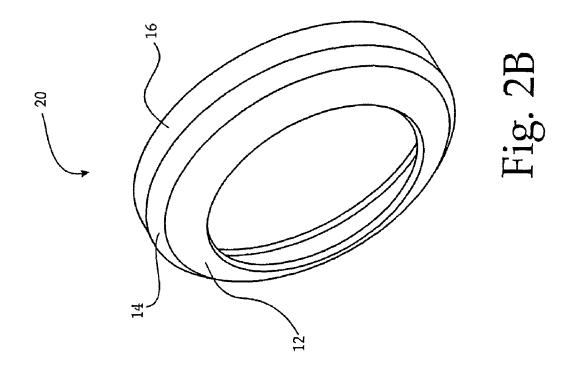
R

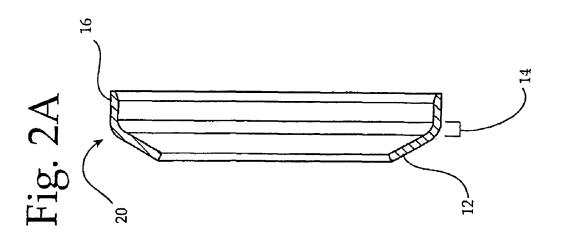
Α



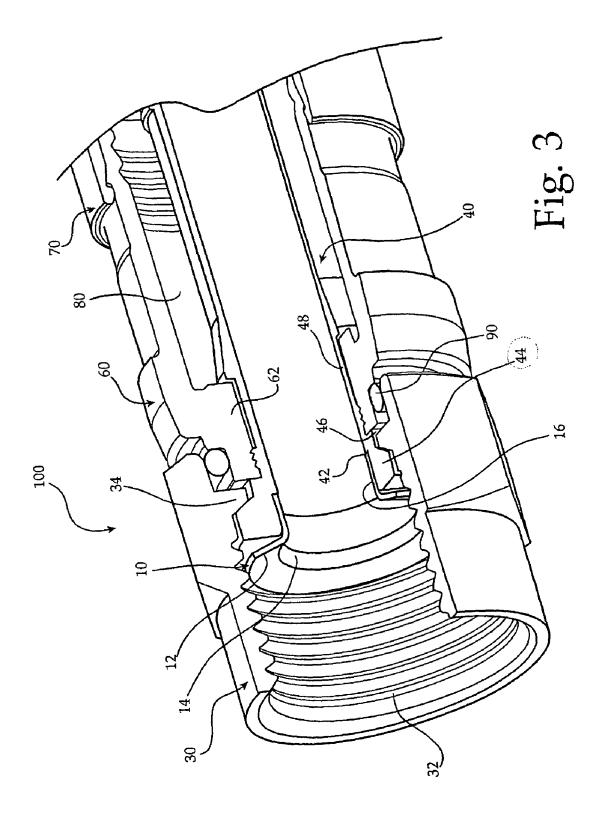


Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

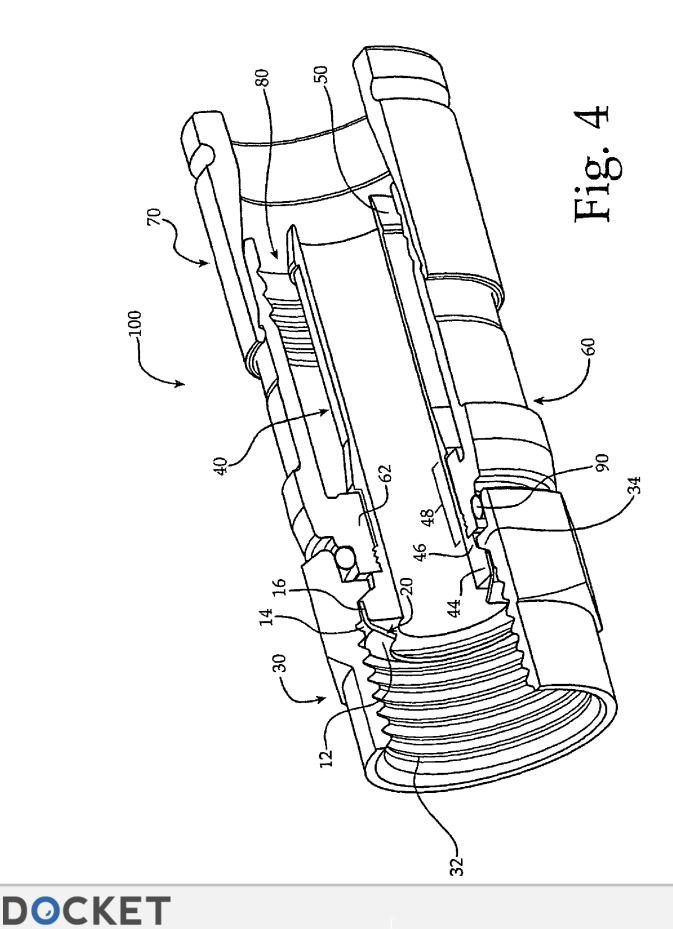




**DOCKET A L A R M** Find authenticated court documents without watermarks at <u>docketalarm.com</u>.



Α



# DOCKET A L A R M



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

# **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

# **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

# API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

# LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

# FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

# E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.