

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
16 December 2004 (16.12.2004)

PCT

(10) International Publication Number
WO 2004/109343 A3

(51) International Patent Classification⁷: **G02B 6/00**

(US). **LEEDS, Kevin** [US/US]; 9091 Carnation Street, Westminster, CA 92683 (US). **HAMMER, Ron** [US/US]; 520 E. Elmwood Avenue, Unit E, Burbank, CA 91501 (US).

(21) International Application Number:
PCT/US2004/017529

(22) International Filing Date: 3 June 2004 (03.06.2004)

(74) Agent: **OHRINER, Kenneth, H.**; Perkins Coie LLP, P.O. Box 1208, Seattle, WA 98111-1208 (US).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/475,853 4 June 2003 (04.06.2003) US

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **SEMPRA FIBER LINKS** [US/US]; 101 Ash Street, San Diego, CA 92101 (US).

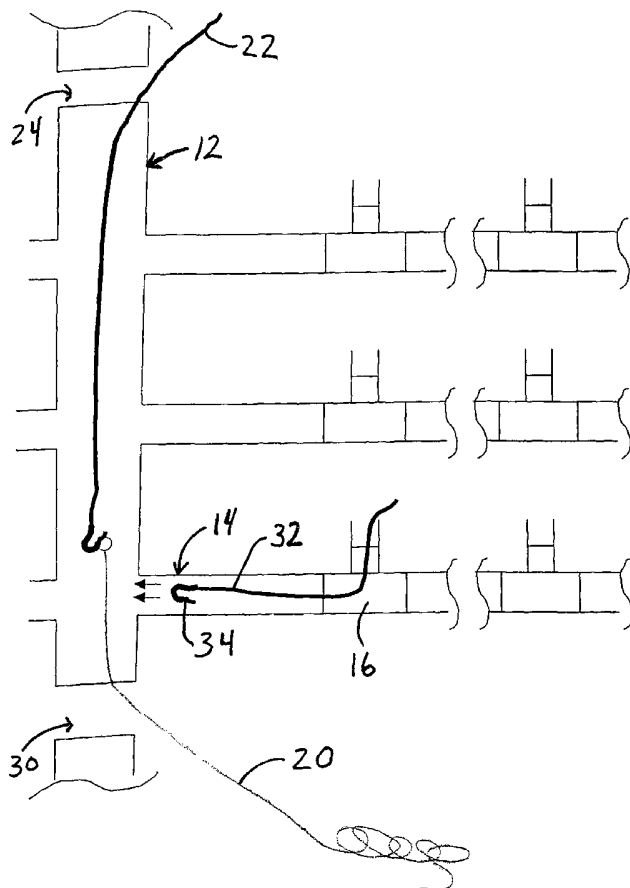
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **BEALS, Scott** [US/US]; 1227 2nd Street, Manhattan Beach, CA 90266

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH,

[Continued on next page]

(54) Title: METHODS FOR INSTALLING FIBER OPTIC CABLE IN A BUILDING



(57) Abstract: A method for installing a fiber optic cable in a building having a gas riser includes the steps of routing a first translating member from a riser entry location, through the riser, and out a riser exit location. A fiber optic cable near the riser exit location is engaged by the first translating member, and is retracted into the riser past a branch in the riser, so the fiber optic cable hangs down past the branch. A second translating member is routed from a branch entry location, through the branch, and into the riser. The fiber optic cable is engaged by the second translating member, and the first translating member is disengaged from the fiber optic cable. The second translating member, along with the fiber optic cable, is retracted through the branch and out the branch entry location. The fiber optic cable may then be connected to an end-user system.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:

19 May 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/17529

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G02B 6/00

US CL : 385/100

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 385/100, 123, 134, 135, 136, 147; 137/318, 317, 551; 405/154.1, 155, 156, 157

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,856,937 A (GROCOTT et al) 15 August 1989 (15.08.1989), Figures 1-2.	6-16
A,P	US 6,736,156 B2 (BEALS et al) 18 May 2004 (18.05.2004), see entire document.	1-23
A,P	US 6,681,795 B2 (BEALS et al) 27 January 2004 (27.01.2004), see entire document.	1-23
A,P	US 6,584,252 B1 (SCHIER et al) 24 June 2003 (24.06.2003), see entire document.	1-23

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

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Date of the actual completion of the international search

20 February 2005 (20.02.2005)

Date of mailing of the international search report

10 MAR 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

JOSE G. DEES

Telephone No. (571) 272-1607



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/17529

Continuation of B. FIELDS SEARCHED Item 3:

EAST: US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT

search terms: (fiber near optic near cable) and riser and (retract\$ near cable\$); (fiber near optic near cable) and (rout\$ near cable\$);
"1658887".pn.; "4043537".pn.; "4856937".pn.; "6328283".pn.; potash; potash and cable; (fiber near optic near cable) and (gas near
install near cable); (fiber near optic near cable) and (gas near cable); (fiber near optic near cable) and (gas near cable) and riser; (fiber
near optic near cable) and riser