

Filed: April 21, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PPC BROADBAND, INC.,
Petitioner,

v.

AMPHENOL CORPORATION,
Patent Owner.

IPR2021-00831
U.S. Patent 10,589,957

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT 10,589,957**

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Ex. 1043	U.S. Patent No. 5,348,241 to Huette (“ <i>Huette</i> ”)

I. Introduction

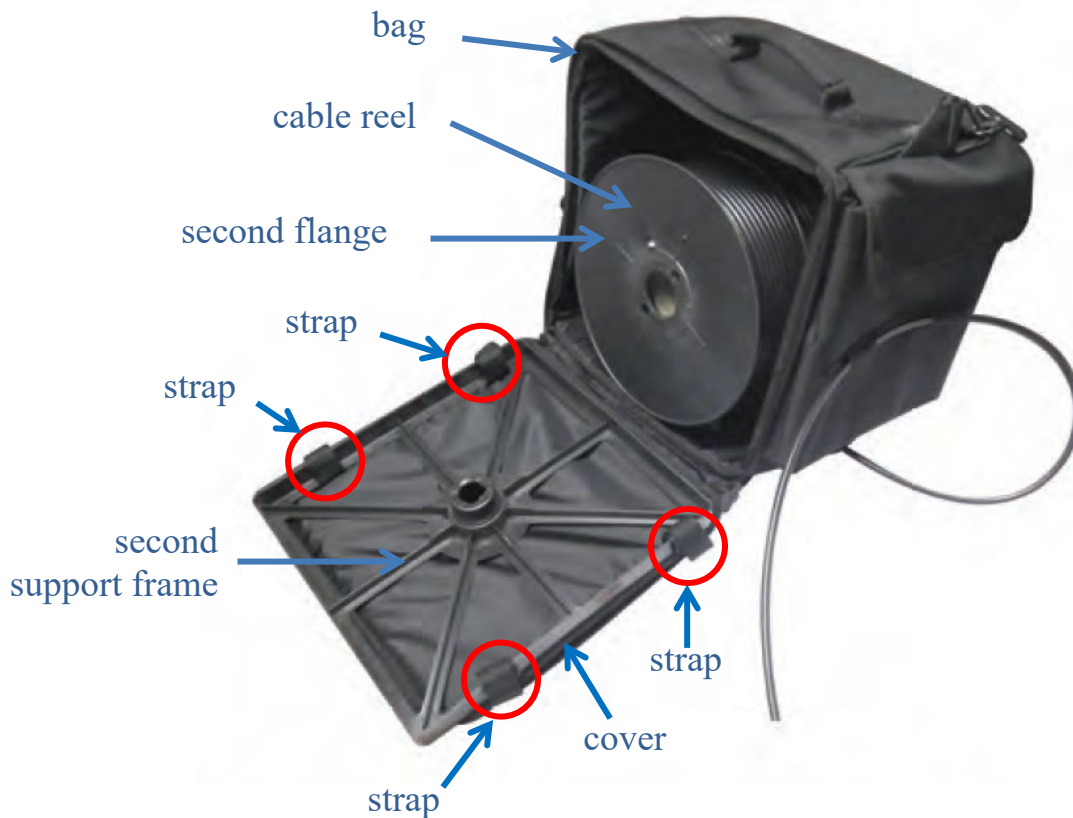
PPC Broadband, Inc. (“PPC” or “Petitioner”) respectfully requests *inter partes* review of claims 9-19 (“the Challenged Claims”) of U.S. Patent No. 10,589,957 (“the ’957 patent”), which claims a priority date of February 27, 2015.

During prosecution, the Examiner allowed original independent claim 17 (now claim 9) based on the following Reasons for Allowance:

[T]he prior art of record, when taken as a whole, does not disclose or suggest the combination of Claim 17 [i.e., Claim 9 of the ’957 patent], including a method of installing a cable reel in a bag, comprising the steps of ***securing a first support frame to a base of a bag; and securing a second support frame to a cover of the bag*** in conjunction with the rest of the limitations of Claim 17.

Ex. 1003, 8 (emphasis added).

But the prior art applied in this Petition teaches that these limitations were not considered by the Examiner. *Brochure* discloses, *inter alia*, a bag for a reusable cable reel system and method that includes the step of securing via straps a support frame to a cover of a bag as shown (Ex. 1002, ¶30):



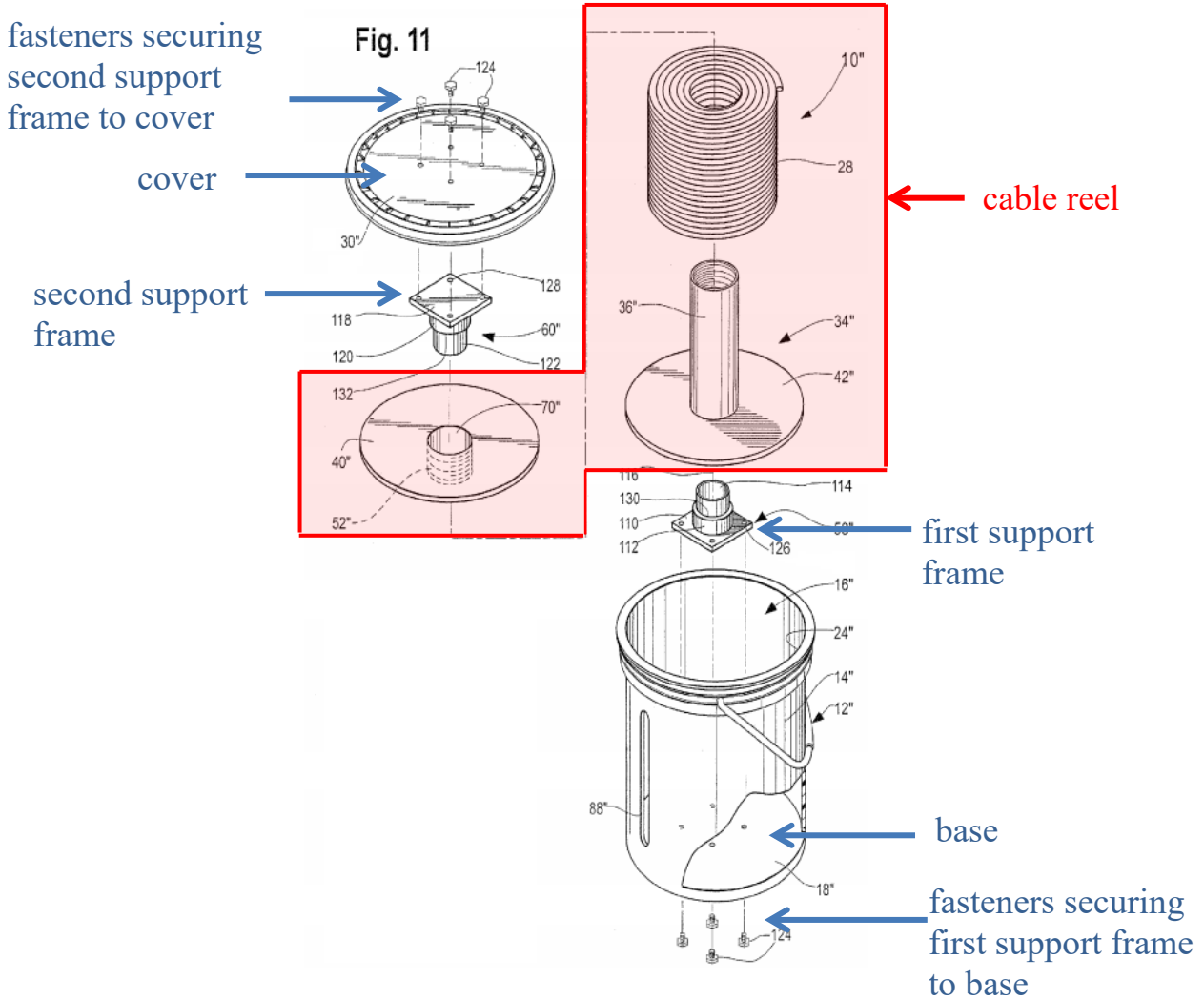
How to use:

1. Insert the cable reel into the bag so that the flange center hole fits over the frame hub and so that the cable pays straight across the bottom of the reel and out the opening of the bag.
2. Close the side panel and ensure that the frame hub is positioned in the cable reel flange opening.
3. Zip the side panel so it is secured.
4. When cable is not in use, place the end of the cable in the elastic holders on the front of the Perfect Tote™.

Brochure (annotated).

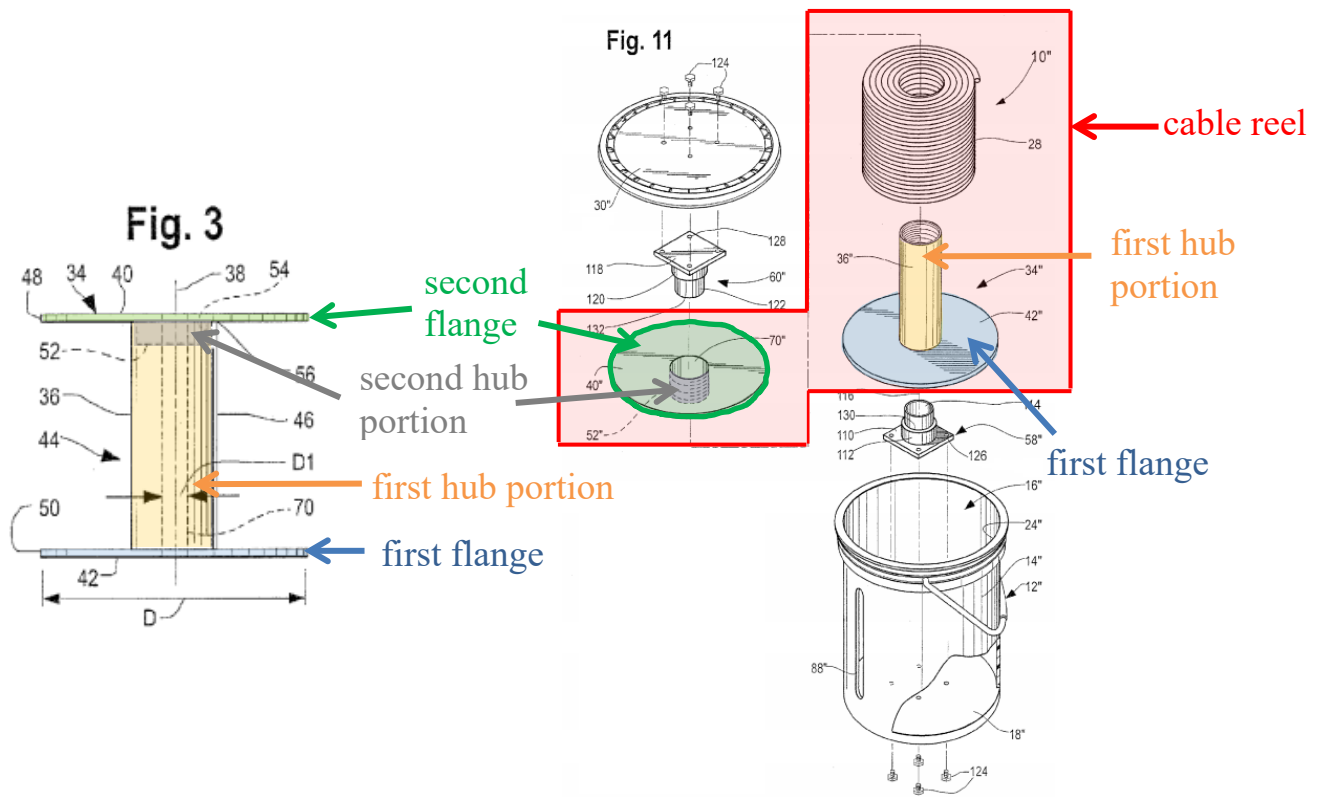
Similarly, *Blunt* discloses, *inter alia*, a reusable cable reel container system and method that includes the steps of securing a first support frame to a base side of

a container and securing a second support frame to an opposing cover side of the container. Ex. 1002, ¶30.



Blunt, FIG. 11 (annotated).

Blunt also teaches the use of a reusable cable reel that includes, *inter alia*, a hub portion with a truncated annular wall received in an elongated annular wall of another hub portion as shown below (Ex. 1002, ¶31):



Id., FIGS. 3, 11 (annotated).

Because the prior art at issue in this Petition renders obvious each and every limitation required by the Challenged Claims as demonstrated below, Petitioner respectfully requests that the Board institute review and cancel the Challenged Claims.

II. Relief Requested and Grounds

The prior art references applied in this Petition are:

Applied References	
Ex. 1006	Published brochure of PPC’s Perfect Tote™ 500 Eco reel tote bag (“ <i>Brochure</i> ”)
Ex. 1004	U.S. Patent Application Publication No. 2012/0168554 to Blunt et al. (“ <i>Blunt</i> ”)
Ex. 1013	U.S. Patent No. 7,938,357 to Johanson et al. (“ <i>Johanson</i> ”)

Petitioner respectfully requests review and cancellation of the Challenged Claims under the following Grounds:

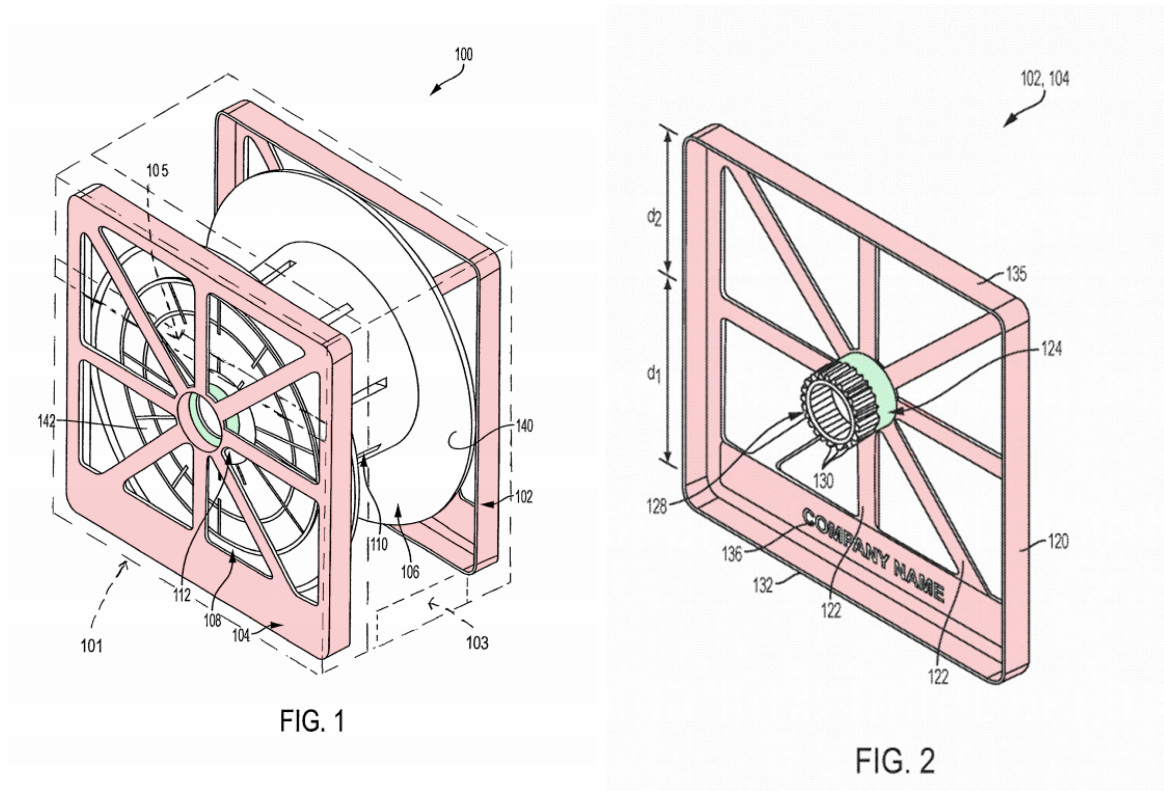
	Claims	Basis under 35 U.S.C. § 103
Ground 1	9-19	Obvious over <i>Brochure</i> in view of <i>Blunt</i>
Ground 2	9-19	Obvious over <i>Brochure</i> in view of <i>Blunt</i> and <i>Johanson</i>

III. The ’957 Patent

A. The ’957 Patent Disclosure

The ’957 patent discloses a method for installing cable on the cable reel 100 that “may be carried in a *conventional* shoulder bag or satchel, a cardboard or plastic

box, and the like 101, with an opening 103 for easy payout of cable supported on the cable reel.” Ex. 1001, 1:15-17, 3:11-15 (emphasis added).



Id., FIGS. 1-2 (annotated).

This cable reel 100 includes a pair of duplicate support frames 102 and 104—each located on opposing sides of a reel—and a pair of middle flange supports 124—each rotatably supporting opposing first and second flanges 106 and 108 connected by a hub member 110. *Id.*, 3:26-29, 3:37-39. To install cable reel 100 in a bag, the first support frame 102 is secured to the base of the bag and the second support frame 104 is secured to the bag cover. *Id.*, 5:23-26. With the cable coil positioned around hub member 110 between the flanges 106 and 108, the assembly is inserted into the

bag (or box) 101 such that a middle flange support 124 of first support frame 102 (which is secured to the base of the bag) fits inside a central arbor opening 144 of flange 106. *Id.*, 5:27-34. Similarly, when the bag is closed, the middle flange support 124 of the second support frame 104 (which is secured to the bag cover) fits in the central opening 144 of flange 108. *Id.*, 5:34-37. The operator can then pay out the cable through an opening 103 in the bag or box. *Id.*, 3:11-15, 5:37-40.

B. The '957 Patent Prosecution History

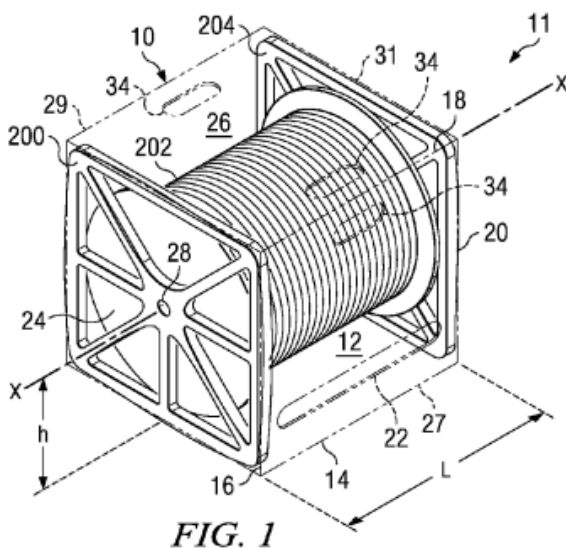
U.S. Patent Application No. 15/833,091 (“’091 application”), which issued as the ’957 patent, claims priority to two applications dating back to February 27, 2015. Ex. 1003, 144-179. All the originally filed claims were directed to a method of installing cable on a cable reel. Ex. 1001, 1:15-17; Ex. 1003, 150-153. After the first Office Action, Patent Owner added the Challenged Claims, which are directed to installing a cable reel in a bag. Ex. 1003, 102-105.

The Examiner originally rejected the Challenged Claims as obvious over *Galvano* (Ex. 1011) in view of *Troitzsch* (Ex. 1012) and *Houston* (Ex. 1015). Ex. 1003, 48-55. For instance, the Examiner provided the following obviousness rationale for substituting *Galvano*’s cardboard box with old and well-known “bag” equivalents:

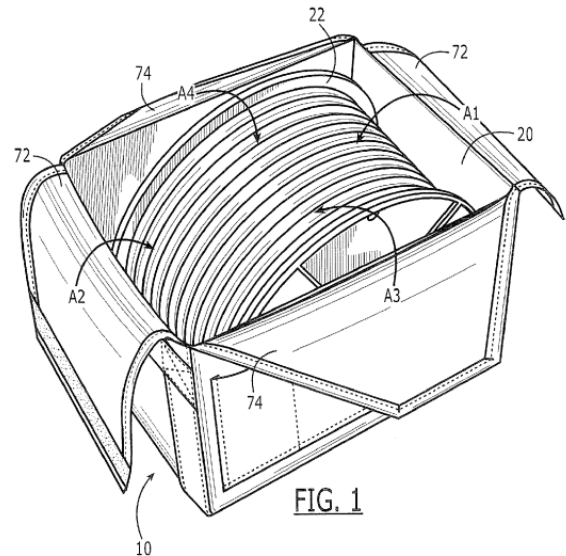
[B]oxes and bags are old and well known art *equivalents*
for storing, transporting, and dispensing items stored in

them. Therefore, as taught by Houston et al. ..., it would have been obvious ... to store the cable reel of Galgano et al. in a bag to make the assembly lighter and easier to carry from one place to another.

Id., 52-53 (emphasis added).



Galgano



Houston

The Examiner's finding that cable transporting boxes and bags are equivalent, making it obvious to substitute a box with a bag, is supported by the '957 patent. Ex. 1002, ¶27. The '957 patent explains that its "cable reel 100 ... may be carried in a **conventional** shoulder bag or satchel, a cardboard or plastic box, and the like 101, with an opening 103 for easy payout of cable supported on the cable reel." *Id.*; Ex. 1001, 3:11-15 (emphasis added).

Patent Owner did not oppose the Examiner's finding and rationale that it would have been obvious to substitute *Galvano's* box with *Houston's* equivalent "bag." Ex. 1003, 40-45. Instead, it acquiesced and argued that "even if a bag, as taught by *Houston*, could be substituted for the carton of *Galvano*," *Galvano* and *Troitzsch* do not disclose other features of the claimed cable reel. *Id.*, 43. Specifically, Patent Owner argued that *Galvano* taught that its cable reel support members 200 and 204, which the Examiner relied upon to teach the claimed first and second support frames, were supported by the sides of the carton instead of being secured to the base and cover of *Galvano's* box, as required by independent claim 17 (now claim 9). *Id.*, 42-43. Patent Owner also argued that *Galvano* and *Troitzsch* did not teach a flange hub with a truncated annular wall received in an elongated annular wall of another flange hub as also required by this claim. *Id.*, 43-44. In response, the Examiner allowed the Challenged Claims based on the Reasons for Allowance identified in Section I above. *See* Ex. 1003, 3-9.

IV. Level of Ordinary Skill

At the time of the alleged '957 patent invention, a person of ordinary skill in the art ("POSITA") would have had at least a bachelor's degree in physics or engineering and experience with the installation of cable as of the earliest priority date of the '957 patent. Ex. 1002, ¶15. Additional education could substitute for professional experience and vice versa. *Id.*

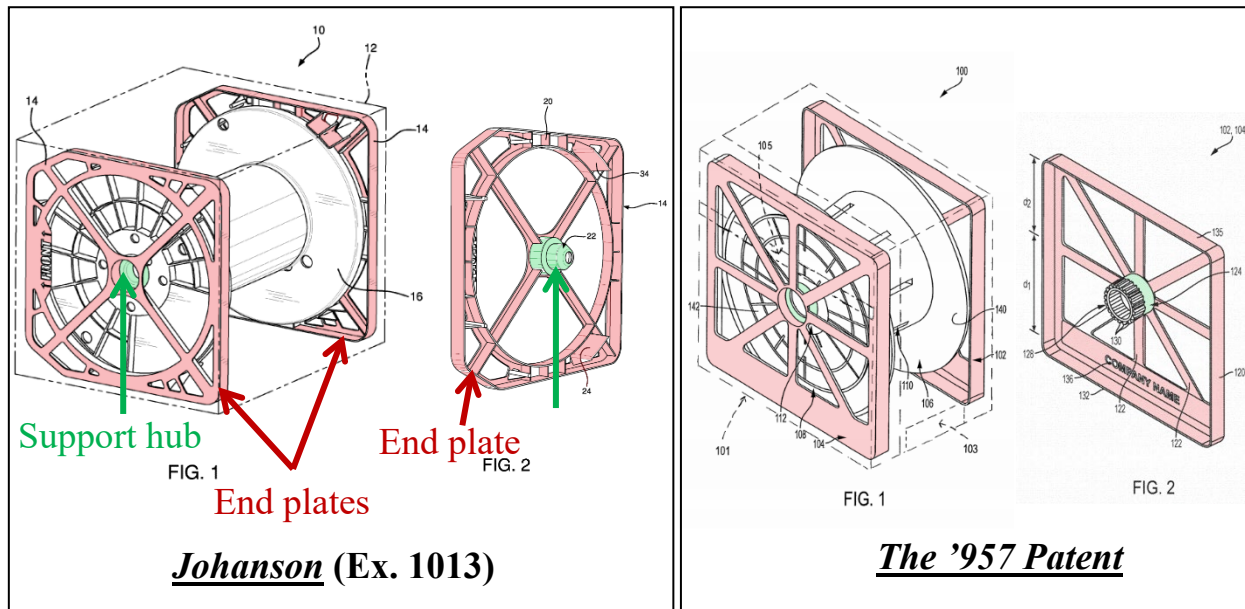
V. Claim Construction

The Board construes claims per *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Claims must be construed only to the extent necessary to resolve a controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Here, no terms need construction and the plain meaning can be applied.

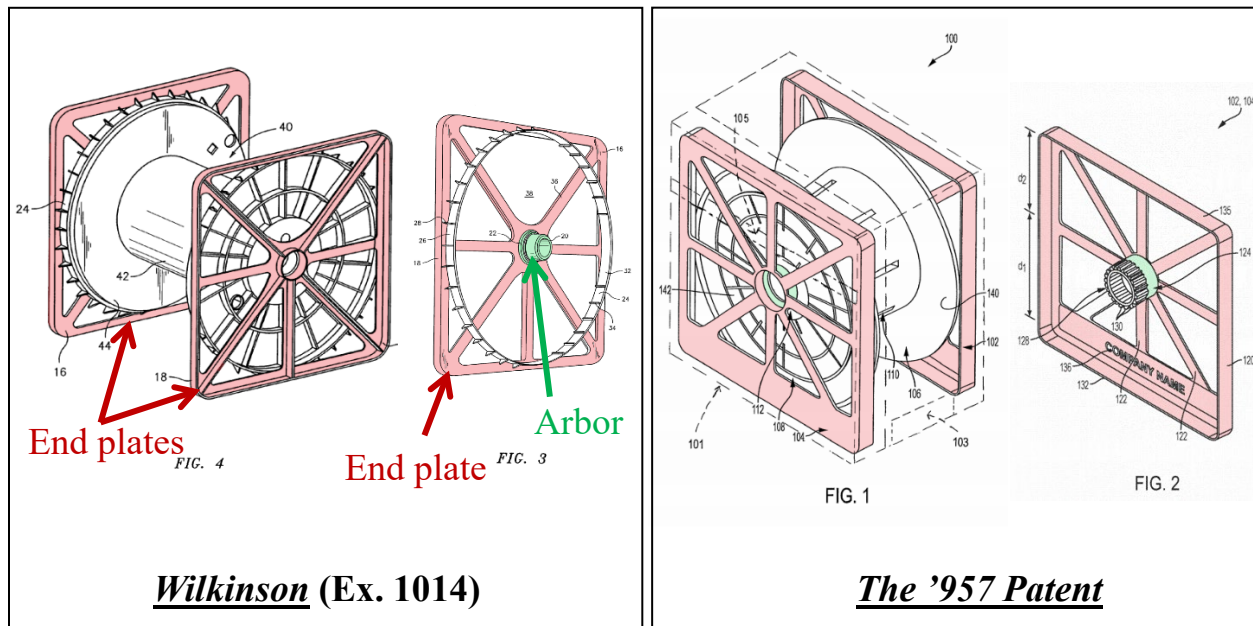
VI. The State of the Art of Cable Communication Bags and Dispensing Mechanisms

Telecommunication cable reel payout containers of different types (bags, plastic boxes, cardboard boxes, etc.) were well known in the prior art before February 27, 2015. Ex. 1002, ¶34. In fact, the '957 patent admits that the alleged “invention relates to a cable reel ... carried in a ***conventional*** shoulder bag or satchel, a cardboard or plastic box, and the like ...,” and that it was known that cable “installers usually use some type ***of shoulder bag or other types of packaging solutions*** with an opening for paying out the cable.” Ex. 1001, 1:21-26, 3:11-15 (emphases added). That is, the '957 patent admits that, consistent with the Examiner’s conclusions during prosecution (*see* Ex. 1003, 51-53), it was well known to carry a cable reel for payout in bags, cardboard boxes, plastic boxes, or other types of containers. Ex. 1002, ¶34; *see* Ex. 1001, 1:21-26, 3:11-15.

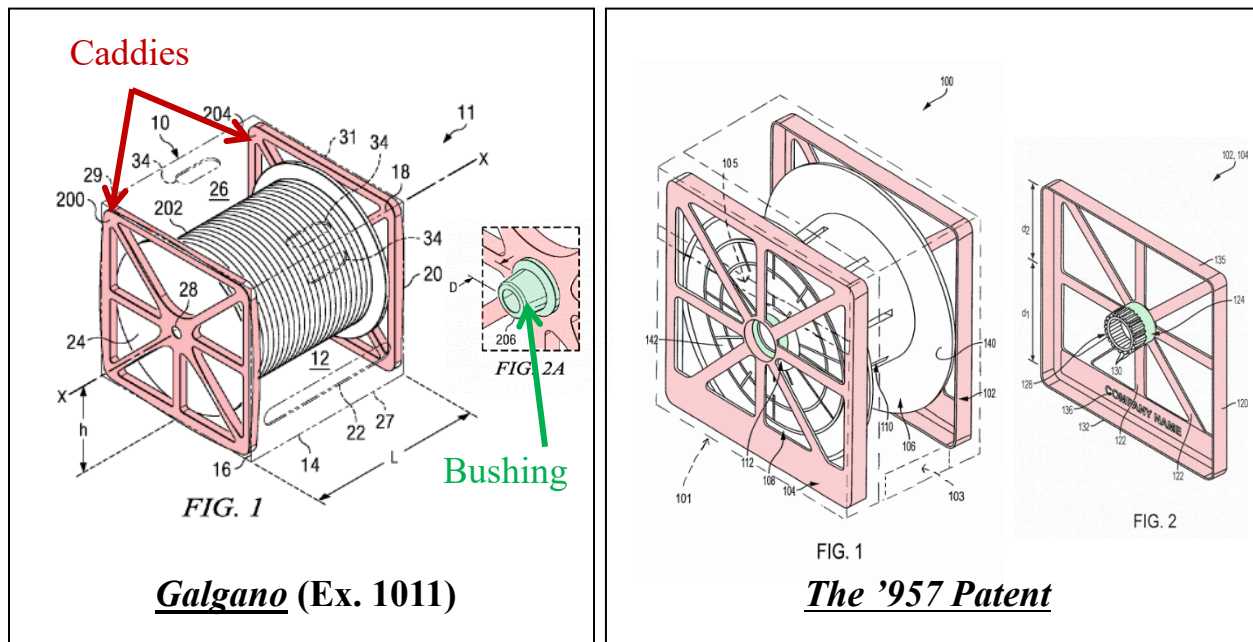
It was also well known that a pair of duplicate support frames, coupled to opposite ends of the container in a mirror-symmetric manner, each frame including a frame hub, has been used to rotatably support a cable reel in the container for payout. Ex. 1002, ¶35.



Johanson (Ex. 1013) discloses a box 12 for storing and dispensing optic cable from a spool 16. *Johanson*, 2:55-59. As in the '957 patent, in *Johanson*, a pair of duplicate end plates 14 are positioned in a mirror-symmetric manner on opposite sides of box 12 to support spool 16 therebetween (*id.*, 2:55-65, 3:5-10). Ex. 1002, ¶36. And as in the '957 patent, in *Johanson*, each end plate 14 includes a support hub 22 that projects inwardly into a circular opening of spool 16 from opposite ends to rotatably support spool 16 in box 12 (*Johanson*, 2:55-3:10). Ex. 1002, ¶36.



Wilkinson (Ex. 1014) discloses a box 12 (not shown in the figure above) for storing and dispensing cable from a spool 40. *Wilkinson*, 2:6-10, 2:66-3:7. In *Wilkinson*, a pair of duplicate **end plates 16** are adhesively secured to opposite sides of box 12 to support spool 40 therebetween (*id.*, 2:14-19, 2:42-46, 3:54-57). Ex. 1002, ¶37. As in the '957 patent, *Wilkinson* teaches the use of a **cylindrical arbor 20** of end plates 16 that extends into a core of spool 40 from opposite ends to rotatably support spool 40 in box 12 (*Wilkinson*, 2:14-19, 2:42-46). Ex. 1002, ¶37.

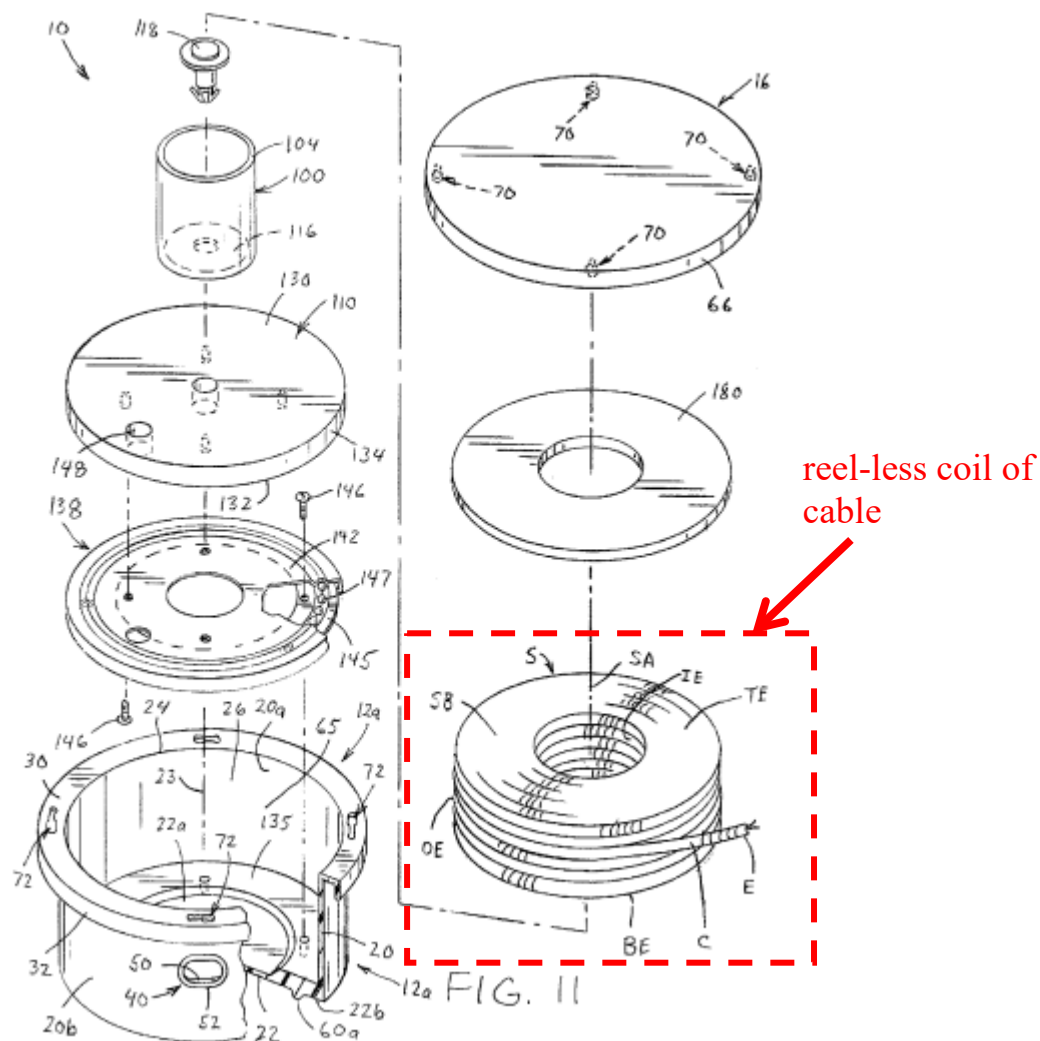


Likewise, *Galgano* (Ex. 1011) discloses a carton 10 with identical **left and right caddies 200, 204** positioned on opposite sides of carton 10. *Galgano*, 3:15-20, 3:58-67. As in the '957 patent, *Galgano* teaches the use of a centrally positioned **bushing 206** (see *id.*, FIG. 2A) on each caddy 202, 204 that extends into a central hole 208 of cable reel 202 from opposite ends to rotatably support cable reel 202 in carton 10 (*id.*, 4:1-30). Ex. 1002, ¶38.

In each of these prior art references, the cable reel is supported in the container for payout in the same manner as that disclosed in the '957 patent. *Id.* ¶39.

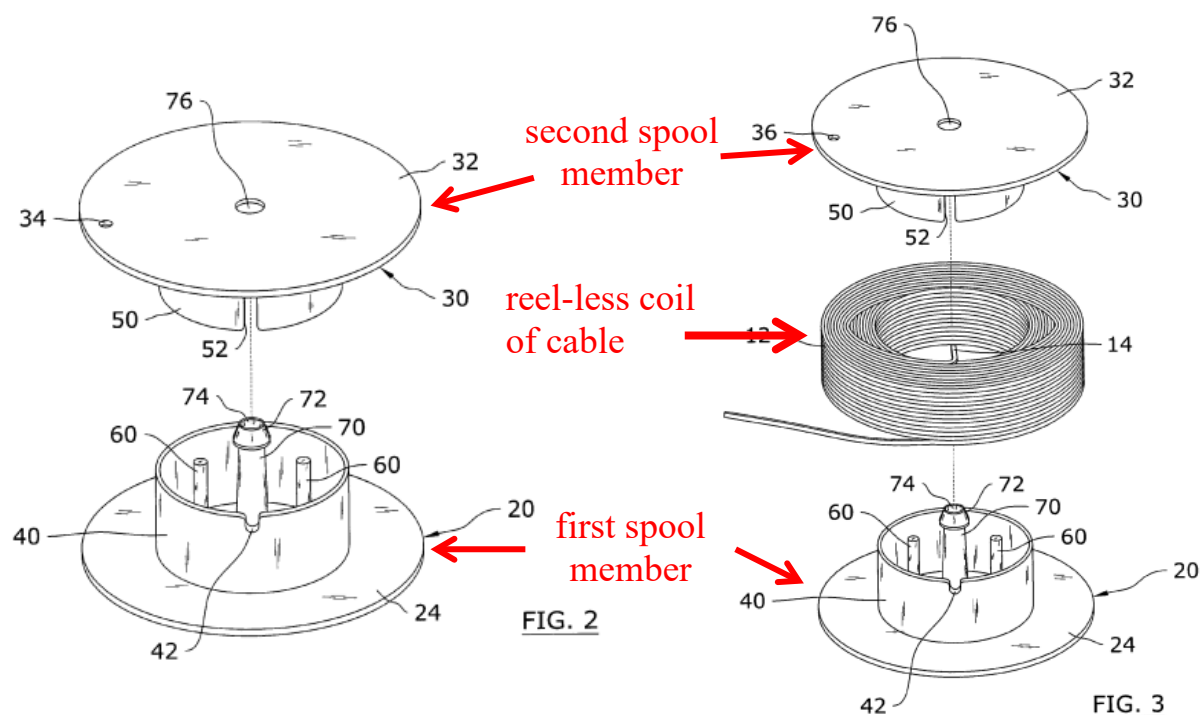
Indeed, duplicate frames on opposite ends inside cable payout containers to rotatably support the cable reel were notoriously old and well known at the time of the alleged invention because of their simplicity and cost savings resulting from having to manufacture only one part. *Id.* ¶40.

It was also well known that cable was commonly sold or provided without a central hub or reel (“reel-less” cable), with numerous prior art references teaching mechanisms for dispensing cable that did not come with a reel or a central hub. *Id.* ¶¶41-46; *Blunt* (Ex. 1004); *Fontana* (Ex. 1005); *Hill* (Ex. 1040); *Lea* (Ex. 1041); *Browning* (Ex. 1042); *Huette* (Ex. 1043).



Hill, FIG. 11 (annotated).

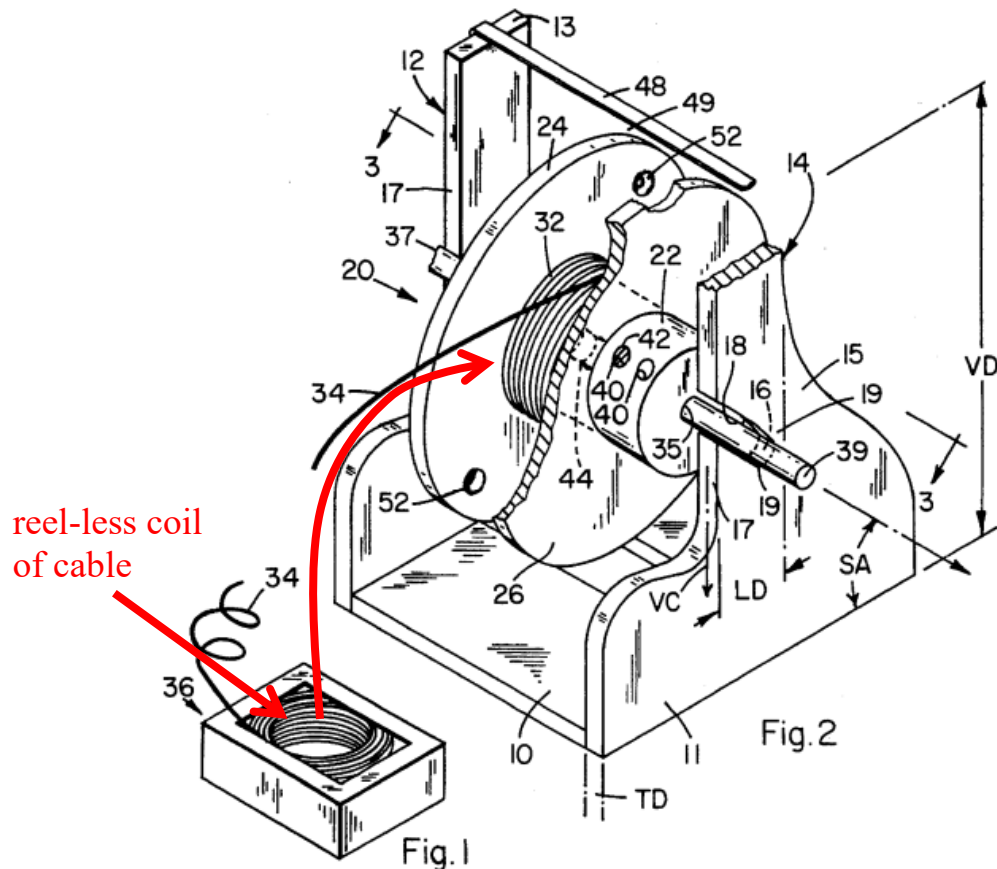
As shown above, *Hill* (Ex. 1040) teaches a cable dispensing system for dispensing a reel-less coil of cable (“spool S”) without a central core. *Id.*, Abstract, 1:3-6, 4:27-41; Ex. 1002, ¶42. *Hill*’s dispensing system can “smoothly dispense cable from a purchased spool of cable ***having no central core*** without kinking or tangling.” *Hill*, 3:24-48 (emphasis added); Ex. 1002, ¶42.



Lea, FIGS. 2-3 (annotated).

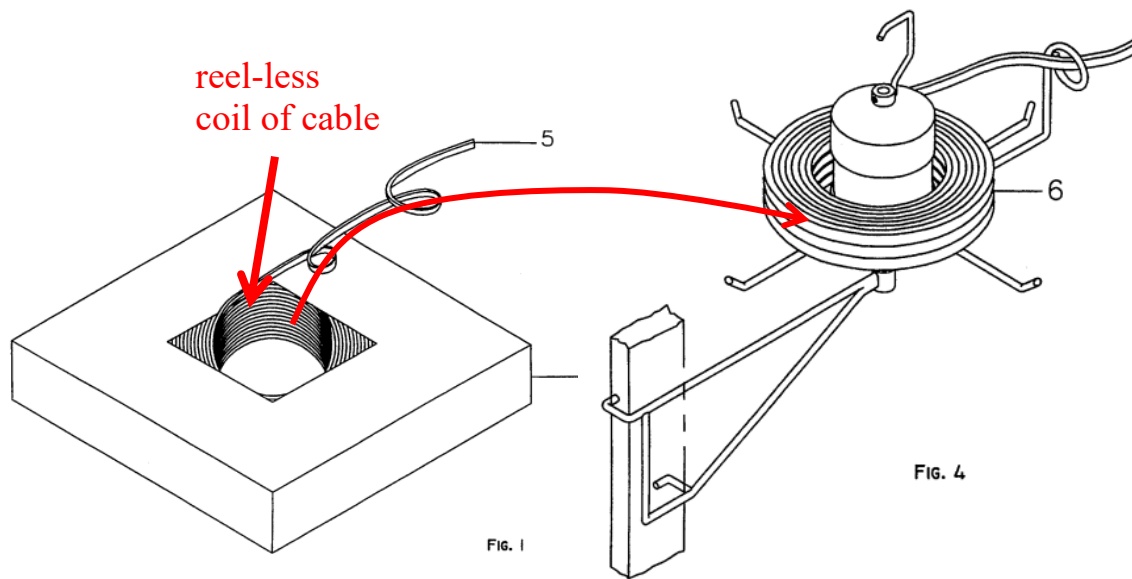
Likewise, *Lea* (Ex. 1041) discloses a mechanism for dispensing a reel-less coil of cable (unspooled wire roll 12) by mounting the coil between a first spool member 20 having a first collar 40 and a second spool member 30 having a second collar 50. *Id.*, 3:27-47, 5:20-27; Ex. 1002, ¶43. *Lea* makes several references to

unspooled wire (*Lea*, 1:16-19, 1:48-53, 5:20-21), teaching that unspooled wire was common and there was a need for a mechanism to mount and dispense the unspooled wire, as shown above. Ex. 1002, ¶43.



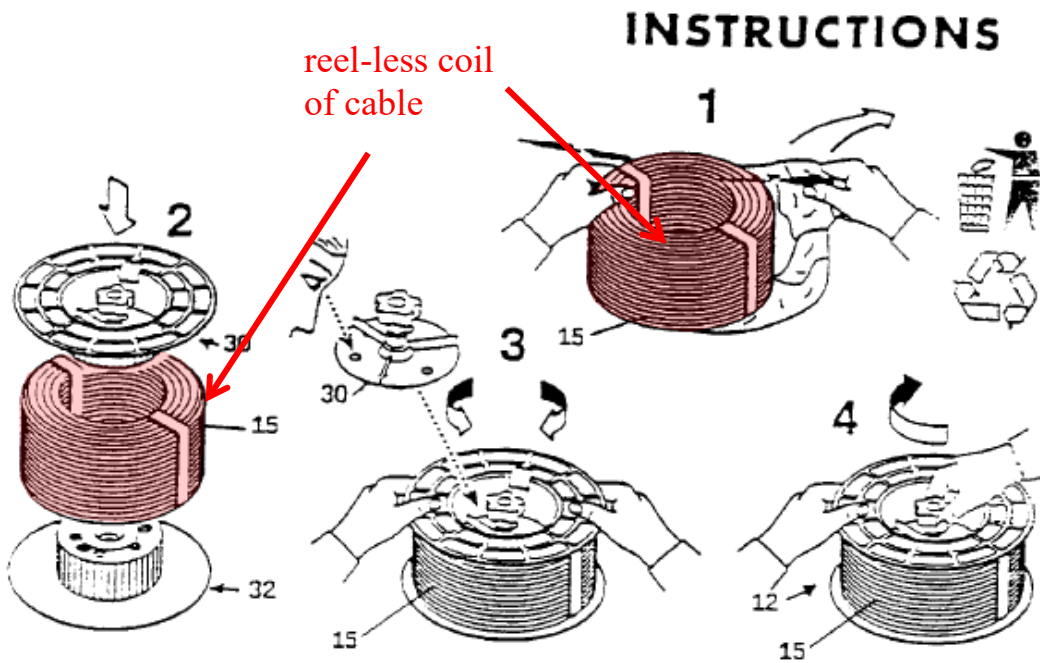
Browning, FIGS. 1-2 (annotated).

Browning (Ex. 1042) also discloses a cable dispensing device including a spool assembly 20 having a hub 22, wherein a prepackaged reel-less coil of cable (wiring cable 34) is removed from its box 36 and placed over the hub and against a first rim 24, and a second rim 26 is placed over the hub, as shown above (*id.*, 3:19-22, 4:4-11, 5:13-52). Ex. 1002, ¶44.



Huette, FIGS. 1, 4 (annotated).

Huette (Ex. 1043) also discloses a wire dispenser that dispenses a reel-less coil of cable (coiled wire 5) prepackaged in a cardboard container by mounting the coil on a rotating dispenser, as shown above. *Id.*, 2:33-35, 3:17-35; Ex. 1002, ¶45. *Huette* describes in detail the disadvantages of dispensing the unspooled coiled wire from the container (*Huette*, 1:17-55, 3:19-32), thus providing the motivation for use of a dispensing mechanism. Ex. 1002, ¶45.



Fontana, FIG. 6 (annotated).

Fontana (Ex. 1005) discloses an apparatus for dispensing a reel-less coil of cable without a spool (cable coil 15) “[t]o reduce costs and have a more ecological packaging.” *Id.*, 1:21-25, 4:33-57, FIG. 6; Ex. 1002, ¶46. *Fontana* teaches that cable coils packaged with a spool are not ecological and are too costly. *Fontana*, 1:11-20. *Fontana* discloses using a container 11 housing a spool 12 with a cover 13 designed to be opened or closed for loading a cable coil 15 without a spool. *Id.*, 2:29-44, 4:47-53.

VII. The Applied References

A. *Brochure*

1. *Brochure Is Prior Art*

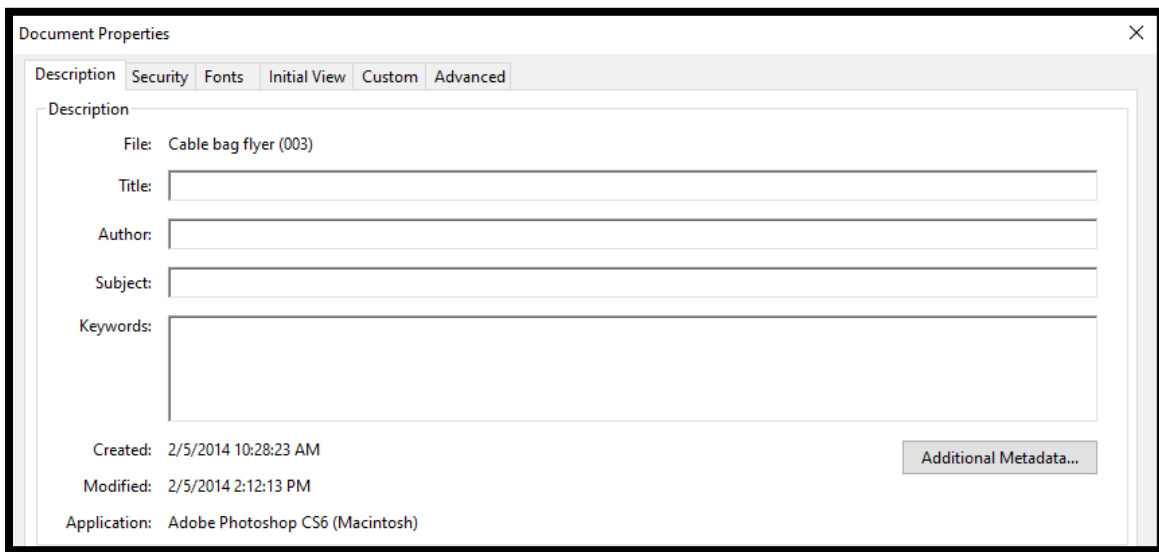
Brochure (Ex. 1006), the published brochure of PPC's Perfect Tote™ 500 Eco reel tote bag ("the *Tote* bag" or "the *Tote*") (*see* Ex. 1007, 5), was publicly accessible to POSITAs at least as of September 25, 2014, several months before the alleged priority date, February 27, 2015, of the '957 patent. *Brochure* is thus prior art to the '957 patent under 35 U.S.C. § 102(a)(1).

"A reference will be considered publicly accessible if it was 'disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.'" *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1348 (Fed. Cir. 2016) (quoting *Kyocera Wireless Corp. v. Int'l Trade Comm'n*, 545 F.3d 1340, 1350 (Fed. Cir. 2008)). "Accessibility goes to the issue of whether interested members of the relevant public could obtain the information if they wanted to," and "[i]f accessibility is proved, there is no requirement to show that particular members of the public actually received the information." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1569 (Fed. Cir. 1988).

The Federal Circuit has found that a product catalog displayed and distributed at an annual dealer trade show with "approximately 150 vendors and more than

1,000 attendees, including actual and potential dealers, retailers, and customers,” to be “publicly accessible” because “interested members of the relevant public could obtain the information if they wanted to.” *GoPro, Inc. v. Contour IP Holding LLC*, 908 F.3d 690, 692-94 (Fed. Cir. 2018) (citations omitted). The court explained that “[t]rade shows are not unlike conferences—a trade show is directed to individuals interested in the commercial and developmental aspects of products. If one desires to examine certain new products on the market, attending a trade show involving identical or similar products is a good option.” *Id.* at 694.

Brochure was even more “publicly accessible” than the product catalog in *GoPro*. *Brochure* was disseminated at the largest trade show in the telecommunications cable industry attended by “about 9,100” professionals from the industry, where about 380 vendors (including PPC and Amphenol) from the industry exhibited products over three (3) days, and where any attendee could (and did) obtain copies of *Brochure*. Ex. 1009, ¶¶6-15; Ex. 1038, ¶¶4-9; Ex. 1026, 2; Ex. 1037.



As attested to by Ms. Cary Mullin (Ex. 1009), *Brochure* was prepared to market the *Tote* bag that existed in 2014. Ex. 1009, ¶¶1-7. The metadata of *Brochure* demonstrates that it was “Created” and “Modified” on February 5, 2014, as shown by the “Document Properties” snapshot reproduced above. *Id.* ¶4. As further testified by Ms. Mullin and Ms. Firmani, the *Tote* bag was exhibited and *Brochure* was distributed at several regional and national cable telecommunications industry conferences and trade shows in 2014, including the largest cable telecommunications and technology trade show in the Americas—Cable-Tec Expo[®]. *Id.* ¶¶6-15; Ex. 1038, ¶¶4-9. *Brochure* was distributed at the exhibition of the Cable-Tec Expo[®] organized by Society of Cable Telecommunications Engineers[®] (SCTE) and held between September 22-25, 2014, at the Colorado Convention Center in Denver, Colorado (“Cable-Tec Expo 2014”). Ex. 1009, ¶7; Ex. 1038, ¶¶4-9. SCTE is the premier technology society of the cable telecommunications industry.

Ex. 1009, ¶9; Ex. 1018. In 2014, SCTE had over 10,000 members and many corporate alliance partners. Ex. 1009, ¶9; Ex. 1019; Ex. 1020.

SCTE's annual conference and exhibition, called the Cable-Tec Expo®, is known around the world as the preeminent venue for disseminating engineering innovation in the cable telecommunications industry. Ex. 1009, ¶¶10-11; Ex. 1021; Ex. 1022. The Cable-Tec Expo® allows attendees to preview and learn about emerging technologies in the cable telecommunications industry and to engage with other professionals in the industry. Ex. 1009, ¶10; Ex. 1021; Ex. 1022. As reported in 2014, "SCTE Cable-Tec Expo® is the cable telecommunications engineering show of the year. In one cost-effective setting[,] nearly 10,000 attendees annually seize the opportunity to discover and learn first-hand about the latest in cable telecommunications technology, products and services. For more than 30 years the industry has relied on Cable-Tec Expo to provide the most energizing, technical knowledge exchange of the year." Ex. 1022, 1; Ex. 1029, 1-2.

Cable-Tec Expo 2014 included numerous technical presentations, technology-focused workshops, and exhibits of the latest in cable technology products and services. Ex. 1009, ¶12; Ex. 1022; Ex. 1023; Ex. 1024; Ex. 1030. Nearly ten thousand (10,000) professionals from the cable telecommunications industry from about sixty (60) countries were expected to attend Cable-Tec Expo 2014. Ex. 1009, ¶12; Ex. 1022; Ex. 1023. Attendees included professionals from

many well-known companies in the telecommunications industry. Ex. 1024; Ex. 1026; Ex. 1028; Ex. 1031; Ex. 1032; Ex. 1033; Ex. 1034. A contemporaneous press report estimated the attendance at Cable-Tec Expo 2014 “at about 9,100.” Ex. 1026, 2. Membership at SCTE or in any other organization was not required to attend the presentations, workshops, or exhibition at Cable-Tec Expo 2014. Ex. 1009, ¶13; Ex. 1025, 1; Ex. 1036; Ex. 1038, ¶5. Anyone could attend Cable-Tec Expo 2014 by paying a registration fee. Ex. 1009, ¶13; Ex. 1027; Ex. 1036; Ex. 1038, ¶5. No attendee was required to sign any confidentiality agreements. Ex. 1009, ¶13; Ex. 1038, ¶5. Attendees could choose to attend the full conference, two days of the conference, or only the exhibition by paying different registration fees. Ex. 1009, ¶13; Ex. 1027; Ex. 1036; Ex. 1038, ¶5.

The exhibition at Cable-Tec Expo 2014—held from Tuesday, September 23, 2014, through Thursday, September 25, 2014—had about 380 exhibitors. Ex. 1038, ¶6; Ex. 1024; Ex. 1037. The exhibitors included many well-known companies in the cable telecommunications industry, including PPC (Petitioner) and Times Fiber—a subsidiary of Amphenol Corporation (Patent Owner). Ex. 1038, ¶6; Ex. 1024, 6, 8; Ex. 1028; Ex. 1031; Ex. 1032; Ex. 1033; Ex. 1034. All conference attendees could visit the exhibition. Ex. 1037; Ex. 1009, ¶13. The exhibition was well attended during the three days of the conference. Ex. 1038, ¶7.



A YouTube video showing highlights of Cable-Tec Expo 2014 shows that the exhibition was well attended. Ex. 1035. Screenshots of this YouTube video, showing the visitors at the exhibition, are reproduced above. PPC also had a booth at the Cable-Tec Expo 2014. Ex. 1038, ¶¶8-9. At the PPC booth, the *Tote* bag was

prominently exhibited, and many copies of *Brochure* were made freely available to visitors to PPC's booth. *Id.*



A photograph of PPC's Booth (Ex. 1010) at Cable-Tec Expo 2014, annotated to show the displayed *Tote* bag, is reproduced above. Ex. 1038, ¶¶8. A contemporaneous news article reported on PPC's presence at the exhibition. Ex. 1009, ¶¶7; Ex. 1016; Ex. 1038, ¶¶4. Thousands of visitors (conference attendees and other exhibitors) visited PPC's booth during the three days of the exhibition. Ex. 1038, ¶¶8-9. All these visitors could see the prominently displayed *Tote* bag, review its brochure—*Brochure*, and take a copy if they wished. *Id.* Many of the visitors to PPC's booth left with copies of *Brochure*. *Id.* Moreover, PPC personnel

manning the booth handed copies of *Brochure* to visitors who expressed an interest in the *Tote* bag. *Id.* Since PPC's goal in exhibiting the *Tote* bag at Cable-Tec Expo 2014 was to find customers for this product, *Brochure* was widely distributed to engineers and other professionals in the cable telecommunications industry at the exhibition. *Id.* Thus, at least as of September 25, 2014, *Brochure* was "disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence" could locate it. *Blue Calypso*, 815 F.3d at 1348 (citation omitted).

In addition to Cable-Tec Expo 2014, PPC's sales and marketing personnel attended several other regional and national cable telecommunications industry conferences and trade shows in 2014 to market PPC's products, including PPC's *Tote* bag. Ex. 1009, ¶6. At these conferences, the *Tote* bag and copies of *Brochure* also were made available to attendees without any restriction. *Id.* Additionally, physical copies of *Brochure* were provided to PPC's regional and national sales teams to deliver to its actual and potential customers. *Id.* ¶5. Further, in 2014, a digital copy of *Brochure* was also included in PPC's iPad application for its sales team to display or email to the public, including to PPC's actual and potential customers, such as when a sales associate visited a client. *Id.* Since the people to whom *Brochure* was made available to (at conferences, while visiting existing and potential clients, or by emailing to existing and potential clients) are professionals

working in the cable telecommunications industry, a substantial portion of these people are POSITAs of the '957 patent. Therefore, *Brochure* was readily available to POSITAs in 2014.

2. Disclosure of *Brochure*

Brochure depicts the *Tote* bag for cable payout like the “*conventional*” cable bag referred to in the '957 patent. Ex. 1002, ¶48. As shown below, the bag includes a side panel (“cover”) that provides access to the bag, a base opposite the bag cover, and a payout opening for “smooth cable payout.” *Brochure*; Ex. 1002, ¶48. The bag also includes a support frame (“second support frame”) having a frame hub in the center and secured to the cover with four straps. *Brochure*; Ex. 1002, ¶48. *Brochure* also depicts a cable reel including a first flange and a second flange on both sides of the reel, along with instructions of how to install the cable reel in the bag. *Brochure*; Ex. 1002, ¶48.

Perfect Tote™ 500 Eco

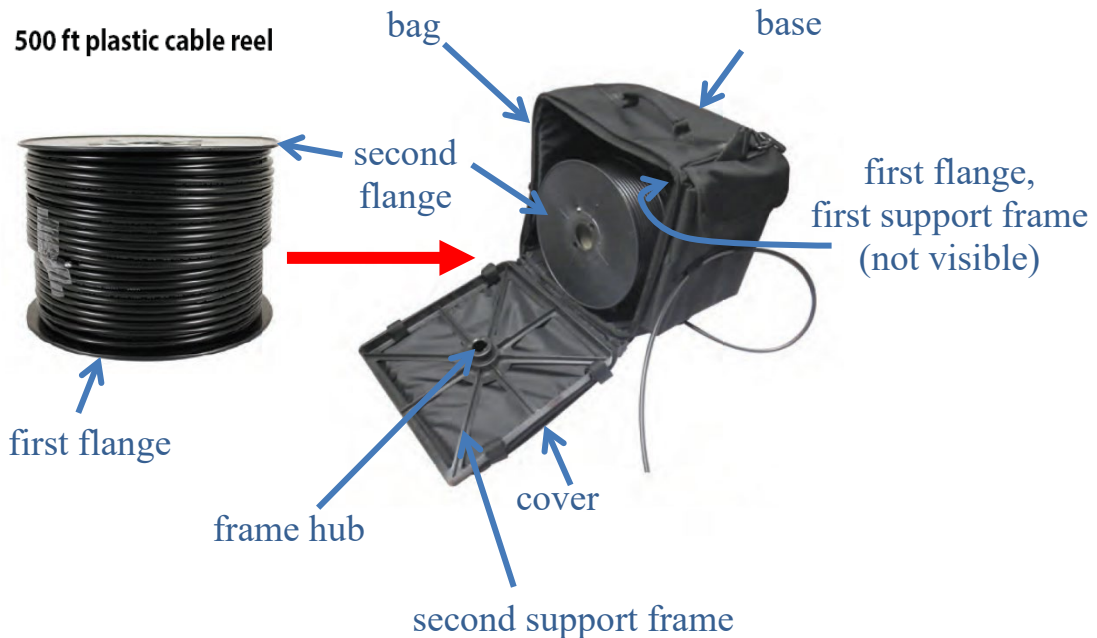
A Portable, **Environmentally-Friendly**
Cable Tote for Technicians

Features:



How to use:

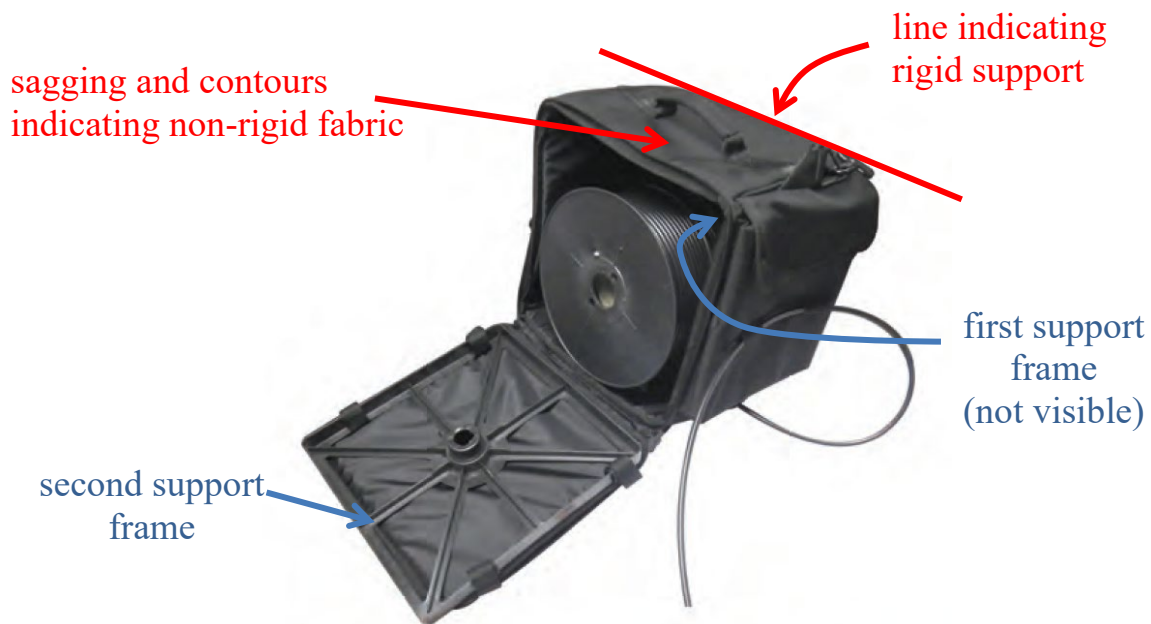
1. Insert the cable reel into the bag so that the flange center hole fits over the frame hub and so that the cable pays straight across the bottom of the reel and out the opening of the bag.
2. Close the side panel and ensure that the frame hub is positioned in the cable reel flange opening.
3. Zip the side panel so it is secured.
4. When cable is not in use, place the end of the cable in the elastic holders on the front of the Perfect Tote™.



Brochure (annotated).

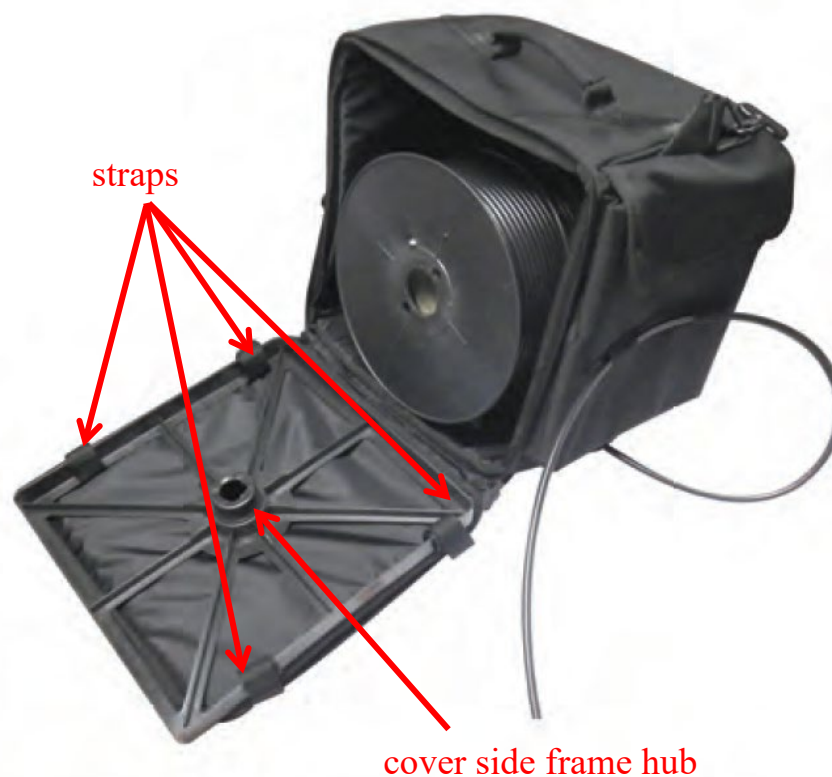
A POSITA would have understood that the bag would have—and/or it would have been obvious to have—a duplicate frame secured to the base of the bag (“first support frame”) on the opposite end of the “second support frame” secured to the bag cover. Ex. 1002, ¶49.

The *Tote* bag is made of a non-rigid material (e.g., a soft fabric-like material) and has frames inside the bag on both the cover and base sides of the bag. *Id.* ¶50. As shown above, since the *Tote* bag includes contours that are associated with a soft material rather than a rigid structure, a POSITA would readily understand that the *Tote* bag is made of a material used for “soft-sided luggage,” rather than a rigid material, such as those used for “hard-side luggage.” *Id.*



Brochure (annotated).

As shown in the figure above, and consistent with the use of a non-rigid fabric, the weight of the handle of the *Tote* bag pushes the unsupported fabric down, thus resulting in sagging near the handle area. Ex. 1002, ¶51. The presence of a support frame on each side of the *Tote* bag is evident by observation of the support frame on the cover side and of the line formed on the opposite base side at the top of the bag, indicating the presence of a support frame similar or identical to that on the cover side. *Id.*



Brochure (annotated).

The cover side frame hub in the *Tote* bag is visible in the photo shown above. Ex. 1002, ¶52. This photo shows the frame hub is the central part of a support frame as its name implies. *Id.* As can also be seen in this photo, the support frame on the cover side is secured to the inside of the bag cover via four (4) straps. *Id.*

How to use:

1. Insert the cable reel into the bag so that the flange center hole fits over the frame hub and so that the cable pays straight across the bottom of the reel and out the opening of the bag.

Brochure.

The presence of the support frame in the base of the bag is further evident from Step 1 of the installation instructions disclosed in *Brochure* and reproduced above. Ex. 1002, ¶53. That is, the base of the bag includes a frame hub that fits into the flange center hole when the cable reel is inserted towards the base of the bag. *Id.* A POSITA would readily recognize that the term “frame hub” refers to a central part of a support frame similar to the frame hub on the bag cover. *Id.* Based on common practice in the art, as evidenced by *Wilkinson* (Ex. 1014) for instance and as discussed in Section VI, a POSITA also would understand that the support frame that the frame hub of Step 1 is part of would be secured to the bag base similar to the frame hub on the bag cover. Ex. 1002, ¶53. A POSITA would have understood that the *Tote* bag would not work without a duplicate support frame secured to the base of the bag because the flanges of the cable reel would have to be rotatably

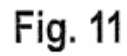
supported in a stable and balanced way for the bag to function for cable payout. *Id.* Thus, the *Tote* bag (and *Brochure*) includes a support frame secured to its base (cable reel receiving side), and this base side support frame includes the frame hub that fits into the flange center hole. *Id.*

The mechanism for attaching the cover side frame is visible as four (4) straps securing the frame to the bag cover. *Id.*, ¶54. A POSITA would understand the necessity of securing the base side frame hub to the bag base to prevent the frame hub from moving and falling into the bag. *Id.* Furthermore, based on the observed securing mechanisms on the bag cover, a POSITA would understand that the *Tote* bag includes securing mechanisms to secure the base side frame to the base in the same manner as the cover side frame is secured to the bag cover. *Id.*

B. *Blunt*

Blunt was published on July 5, 2012, more than a year before the assumed priority date of the '957 patent—February 27, 2015. *Blunt* is prior art under 35 U.S.C. § 102(b).

Blunt discloses a “system and method for storing a wrapped supply of cable for controlled payout.” *Blunt*, Abstract, [0002]. The *Blunt* system and method include a reusable cable reel 34" installed in a container 12". *Id.*, [0092], [0096]-[0098]. Ex. 1002, ¶¶56-57.



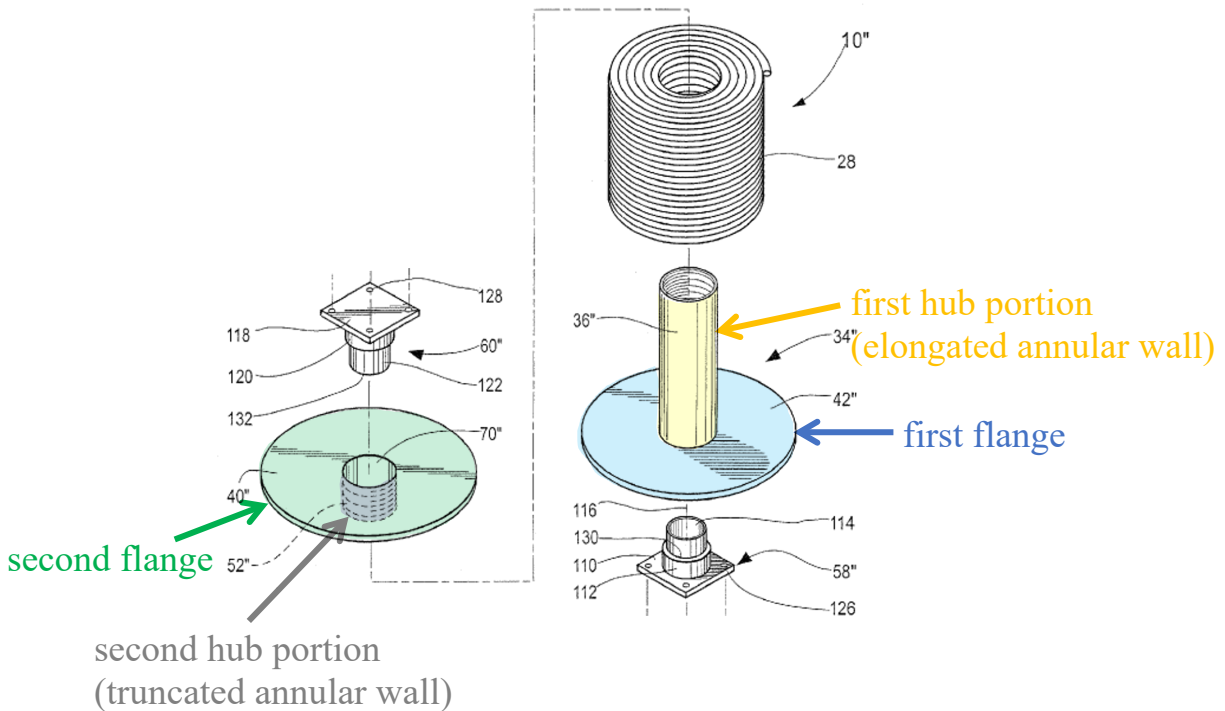
Id., FIG. 11.

As shown above, reel 34" is installed in container 12" using a pair of guide components 58", 60". *Id.*, [0095], [0097]. Guide components 58", 60" have the same construction with guide component 58" having a base 110 with a fixed annular

sleeve 112. *See id.*, [0093]. A shaft 114 is mounted in the annular sleeve for rotation within the sleeve 112 about an axis 116. *Id.* Likewise, guide component 60" has a base 118 and an annular sleeve 120 with a shaft 122 rotatably mounted within sleeve 120. *Id.*, [0094]. Base 110 of guide component 58" is secured to the bottom wall 18" of container 12", and base 118 of guide component 60" is attached to a lid 30". *Id.*, [0095]. When guide components 58", 60" are secured in place, shafts 114, 122 of guide components 58", 60" are coaxial and project towards each other in a storage space 16" of container 12". *Id.*, [0093]-[0097]. Reel 34", with wrapped cable 28 around its core 36", is disposed in storage space 16" such that shafts 114, 122 of guide components 58", 60" are directed into a bore 70" defined through the reel 34" from opposite ends. *Id.*, [0097]. Thus, reel 34", which is captively located between the facing annular shoulders 130, 132 of guide components 58", 60", rotates around axis 116. *Id.*, [0097], [0082]. Container 12" has a payout opening 88 through which a free end portion P of the cable would be drawn and paid out from outside container 12". *Id.*, [0082]. When the cable is drawn, reel 34" rotates within container 12" and the cable is smoothly paid out. *Id.*

Blunt discloses that reel 34" has a two-component construction, where (1) the first component includes a combined flange 42" and core 36", and (2) the second component includes a separate flange 40" with an associated stub component 52". *Id.*, [0096]. Core 36" includes an elongated annular wall extending about bore 70"

defined through reel 34". *Id.* [0097]; Ex. 1002, ¶58. Stub component 52" includes a truncated annular wall extending about bore 70". Ex. 1002, ¶58.



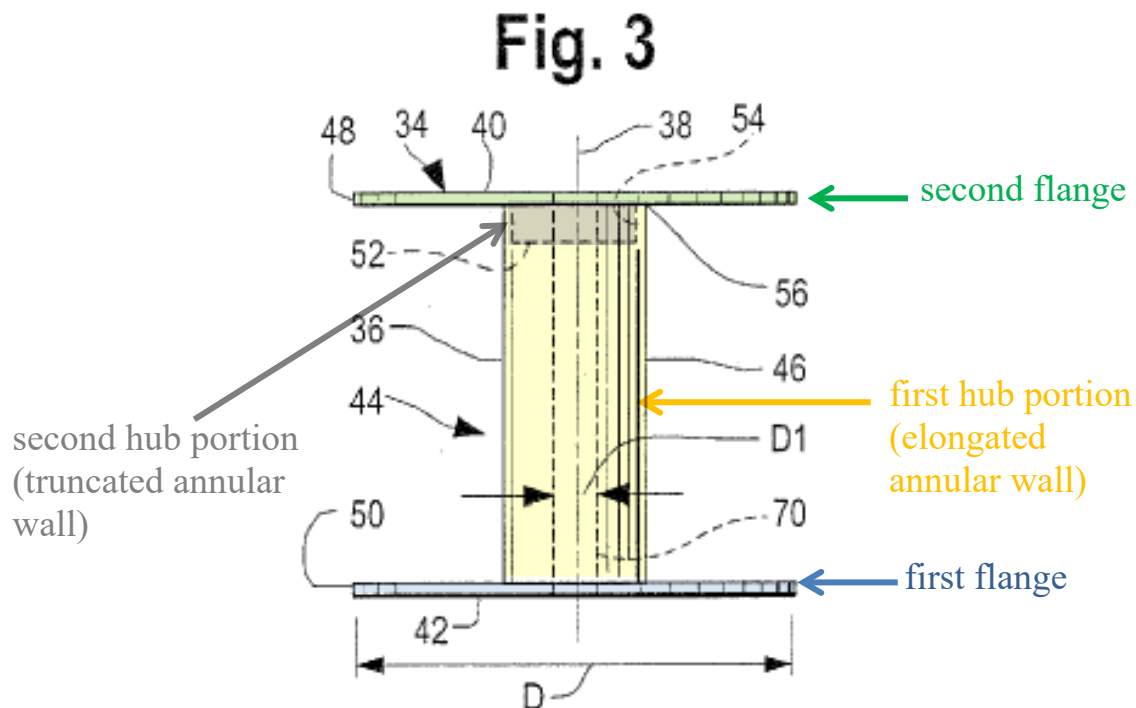
Blunt, FIG. 11 (annotated).

With reference to Figure 3 below, *Blunt* also discloses that

core 36 and flange 42 are formed together as an inseparable unit. The flange 40 is provided with a stub component 52 that can be nested in a complementary receptacle 54 on the core 36. The stub component 52 and core 36 may be ***releasably maintained*** together through frictional engagement With this arrangement, the flange 40 can be ***selectively separated*** from the core 36 to

allow the core end 56 to be directed through a pre-coiled supply of cable 28.

Id., [0073] (emphases added).



Id., FIG. 3 (annotated).

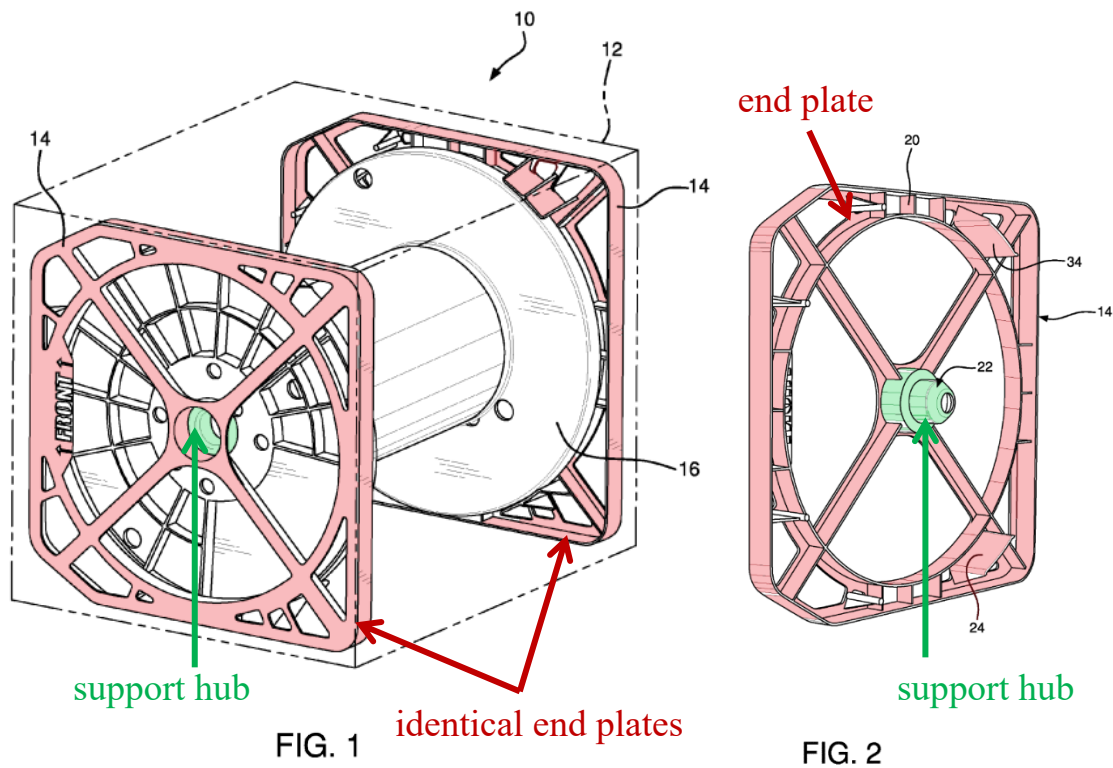
Thus, *Blunt* discloses placing a coil of cable on core 36" (elongated annular wall) of flange 42" and then placing stub component 52" (truncated annular wall) of flange 40" within a receiving area of core 36". *Id.*, [0073]; Ex. 1002, ¶60. A POSITA would have understood that core 36" constitutes "a first hub portion" and stub component 52" constitutes "a second hub portion," which are coupled together to form a hub structure to hold the supply of cable 28 between the flanges. *Blunt*, [0073]; Ex. 1002, ¶60. Stub component 52" (truncated annular wall) is releasably

receivable within core 36" (*Blunt*, [0073]; Ex. 1002, ¶60) and would be removed from core 36" (elongated annular wall) "once the supply of cable 28 is exhausted to allow a new supply 26 of cable 28 to be replaced, ... utilizing the reel 34 with a replenished supply of the cable 28." *Blunt*, [0089]; Ex. 1002, ¶60.

C. *Johanson*

Johanson was published on May 10, 2011, more than a year before the assumed priority date of the '957 patent—February 27, 2015. *Johanson* is prior art under 35 U.S.C. § 102(b).

As shown below, *Johanson* discloses a pair of identical end plates 14, each including a support hub 22, positioned in a mirror-symmetric manner on opposite sides of a box 12 to support a spool 16 therebetween (*id.*, 2:55-65, 3:5-10). Ex. 1002, ¶36.



Johanson, FIGS. 1-2 (annotated).

VIII. The Challenged Claims Are Unpatentable over *Brochure* in View of *Blunt*

The combination of *Brochure* and *Blunt* discloses and/or suggests each and every element of the Challenged Claims of the '957 patent. Ex. 1002, ¶¶62-139. For instance, *Brochure* discloses a cable reel bag and a method for installing a cable reel in the bag. *Id.* ¶62. *Blunt* discloses a reusable cable reel that is compatible with the *Tote* bag and methods for installing the reusable reel in a container. *Id.* A POSITA would have found it obvious to modify *Brochure*'s reel with *Blunt*'s reel structure or substitute *Brochure*'s reel with *Blunt*'s reel structure to, for instance, replenish the supply of cable in *Brochure*'s reel when it is exhausted in an environmentally

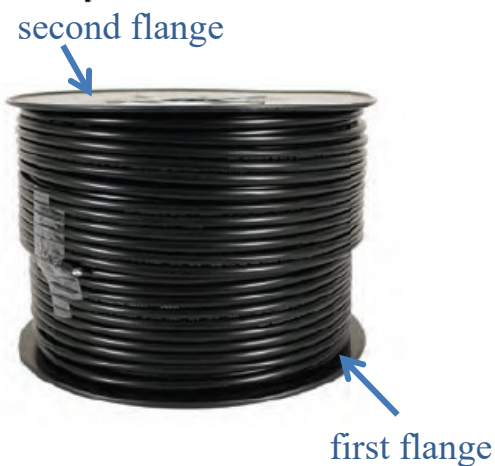
friendly way. *Id.*; *Blunt*, [0107]. A POSITA also would have found it obvious to modify *Brochure*'s installation method with *Blunt*'s methods for installing a reusable reel for similar reasons. Ex. 1002, ¶62.

A. A POSITA Would Have Been Motivated to Combine *Brochure* and *Blunt* and Expect Success

Brochure discloses that the *Tote* bag is an “Environmentally-Friendly” option for cable payout. *Brochure*; Ex. 1002, ¶63. *Blunt* discloses a reel 34" with a hub construction that would be replenished with a new supply of cable when the cable supply in the reel is exhausted such that the reel would be reused in “an environmentally friendly manner.” *Blunt*, [0019], [0073], [0089], [0107]; Ex. 1002, ¶63. A POSITA would have understood that the ability to replenish cable in *Brochure*'s reel would be environment friendly because it would save cost and reduce waste since the entire cable reel does not have to be disposed. Ex. 1002, ¶63; *Blunt*, [0019] (“[O]nce the supply of cable is exhausted, the installer must appropriately dispose of the reel and container. With the ever-increasing concern about environmental impact, disposal of these components becomes a problem.”); *see also Fontana*, 1:21-25, 4:33-57, FIG. 6 (disclosing an apparatus for dispensing a reel-less coil of cable without a spool “[t]o reduce costs and have a more ecological packaging”).

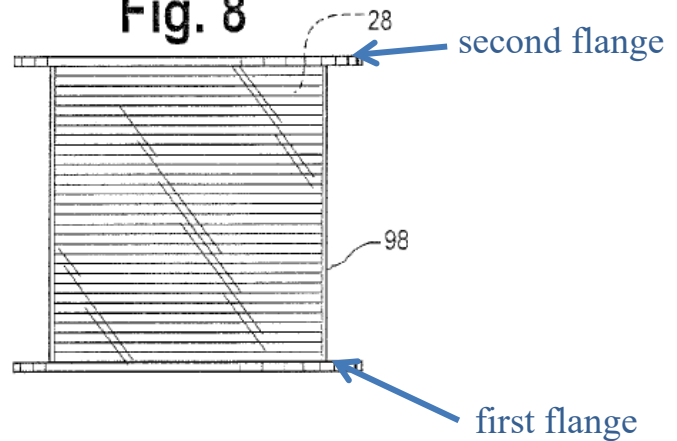
A POSITA would have expected success in modifying *Brochure*'s method of installing a cable reel in the bag with *Blunt*'s methods of installing a reusable reel or reel structure because the modification would merely involve using a known technique to improve similar devices and methods in the same way taught. Ex. 1002, ¶64. For instance, both *Brochure* and *Blunt* disclose using containers to transport a cable reel and payout cable without needing to remove the reel from the container. *Id.* Both *Brochure* and *Blunt* disclose using reels having flanges on both sides with a coil of cable held therebetween, as shown below (*id.*):

500 ft plastic cable reel



Brochure

Fig. 8



Blunt

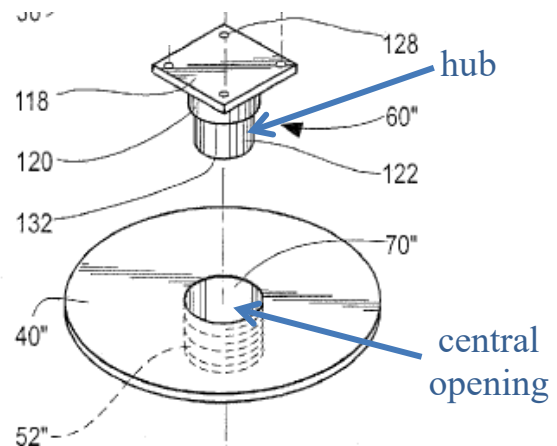
Both reels have central openings for rotating about a hub, as shown below (Ex. 1002, ¶65):

500 ft plastic cable reel

central opening



1. Insert the cable reel into the bag so that the flange center hole fits over the frame hub and so that the cable pays straight across the bottom of the reel and out the opening of the bag.
2. Close the side panel and ensure that the frame hub is positioned in the cable reel flange opening.



“To interact with the guide components 58, 60, the core 36 is provided with a central throughbore 70 with a diameter D1 that is slightly greater than the diameters of the free end surfaces 72, 74 of the guide components 58, 60, respectively.”

Brochure

Blunt, [0075]

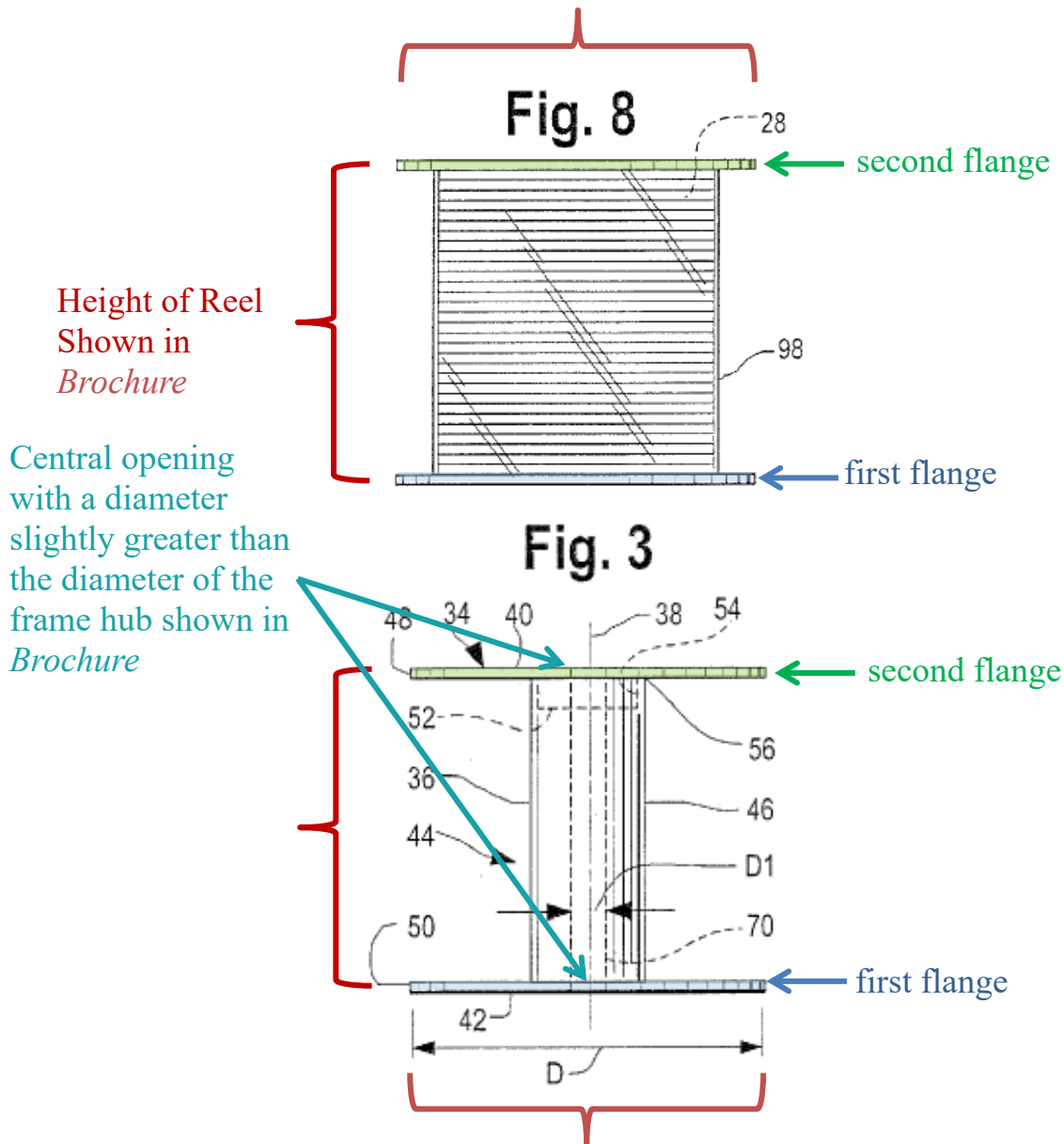
Both *Brochure* and *Blunt* disclose captively and rotatably supporting the flanges on opposite sides of the reel with duplicate frames and frame hubs secured to opposite sides in the container. *Brochure*; *Blunt*, [0093]-[0097], [0082]; Ex. 1002, ¶66. And both *Brochure* and *Blunt* intend to provide environmentally friendly options. Ex. 1002, ¶66; *Brochure*; *Blunt*, [0019], [0107].

Given the similar functions, structures, and methods of installation of both reels, a POSITA would have known how to and been motivated to (1) modify *Brochure*'s reel with *Blunt*'s hub construction, such as the two-component

construction disclosed by *Blunt* (*Blunt*, [0096]); or to (2) appropriately size *Blunt*'s reel to substitute the reel of *Brochure*. Ex. 1002, ¶67. A POSITA also would have known how to and been motivated to modify *Brochure*'s installation method with *Blunt*'s methods for installing the modified or substituted reel. *Id.* Indeed, a POSITA would have understood how to install *Blunt*'s reel in *Brochure* by suitably sizing *Blunt*'s reel based on *Blunt*'s teaching of the relative sizing of the reel and the selected container. *Blunt*, [0077], FIG. 2; Ex. 1002, ¶67. And a POSITA would have understood that such modification would allow *Brochure* to obtain the benefits of *Blunt*'s reusable reel structure and its installation methods described above. Ex. 1002, ¶67. A POSITA would appreciate that such modification would achieve the following reel structure (*id.* ¶68):

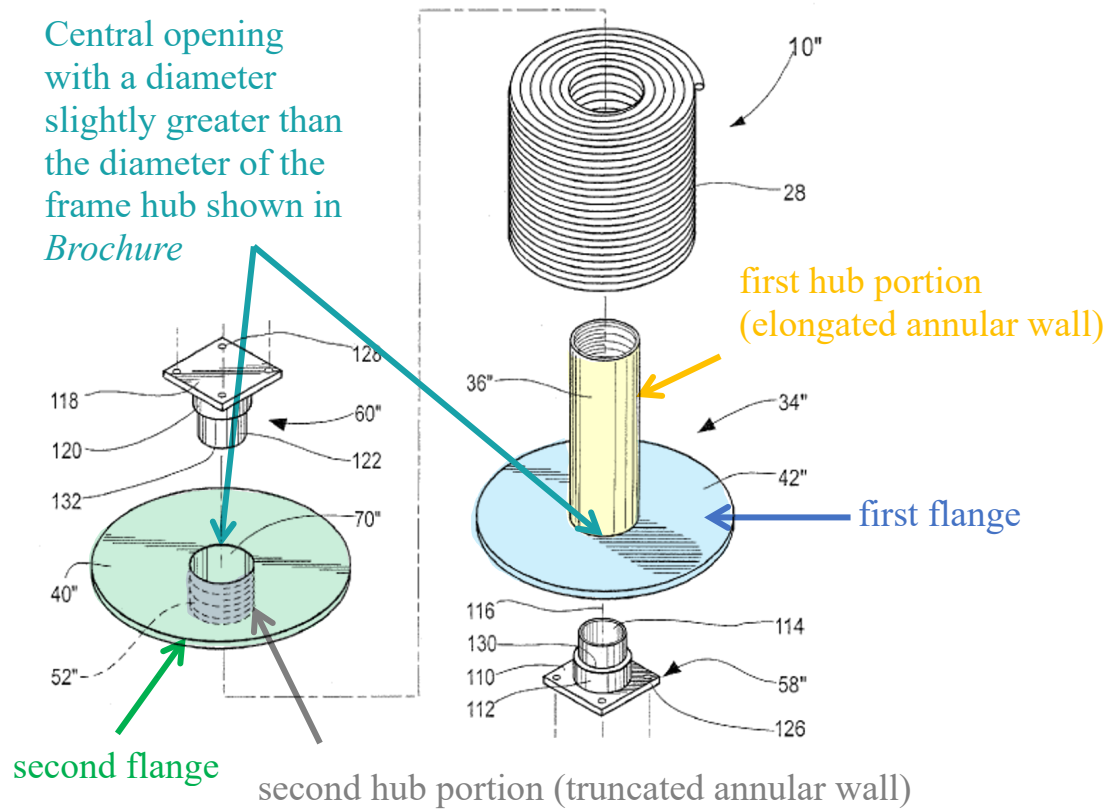
Assembled View

Width of Reel Shown in *Brochure*



Width of Reel Shown in *Brochure*

Disassembled View



B. Independent Claim 9

1. **“A method of installing a cable reel in a bag, comprising the steps of:”**



Brochure.

Brochure discloses a method of installing a cable reel in a bag, as shown above, and provides the following instructions on how to install the cable reel in the *Tote* bag (*Brochure*; Ex. 1002, ¶69):

How to use:

1. Insert the cable reel into the bag so that the flange center hole fits over the frame hub and so that the cable pays straight across the bottom of the reel and out of the opening of the bag.
2. Close the side panel and ensure that the frame hub is positioned in the cable reel flange opening.

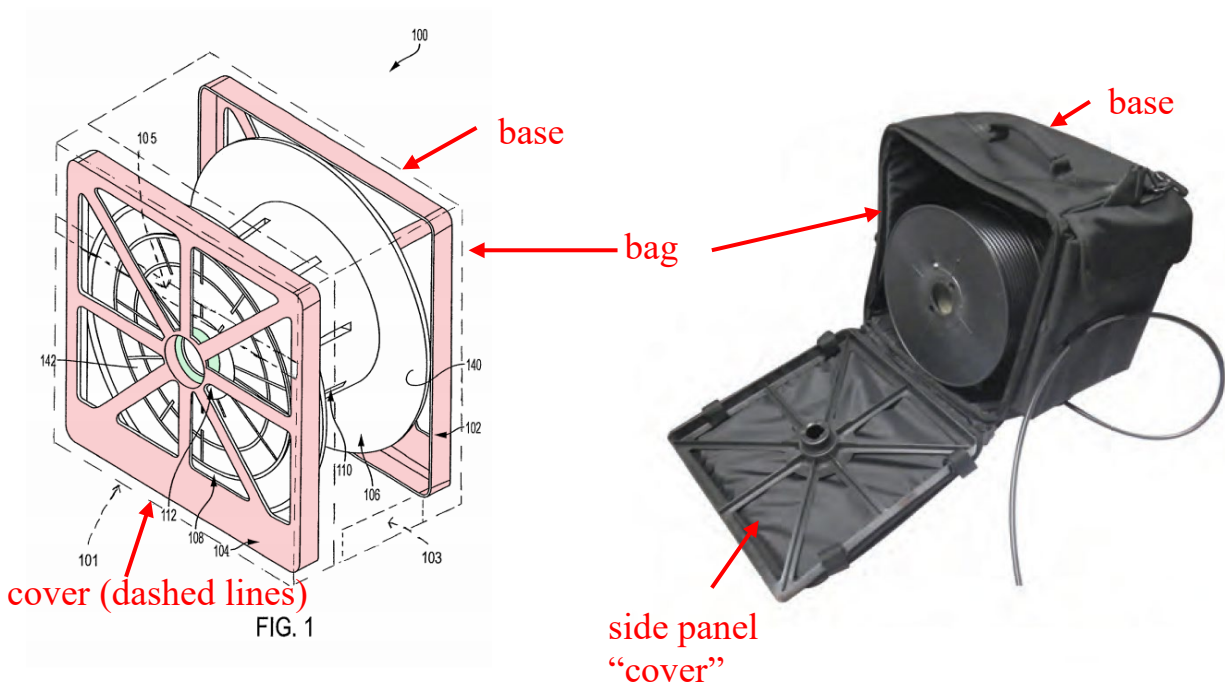
3. Zip the side panel so it is secured.
4. When cable is not in use, place the end of the cable in the elastic holders on the front of the Perfect Tote™.

Brochure.

2. “securing a first support frame to a base of a bag;”

Brochure alone or in combination with *Blunt* renders this limitation obvious.

Ex. 1002, ¶¶70-78.



The '957 Patent

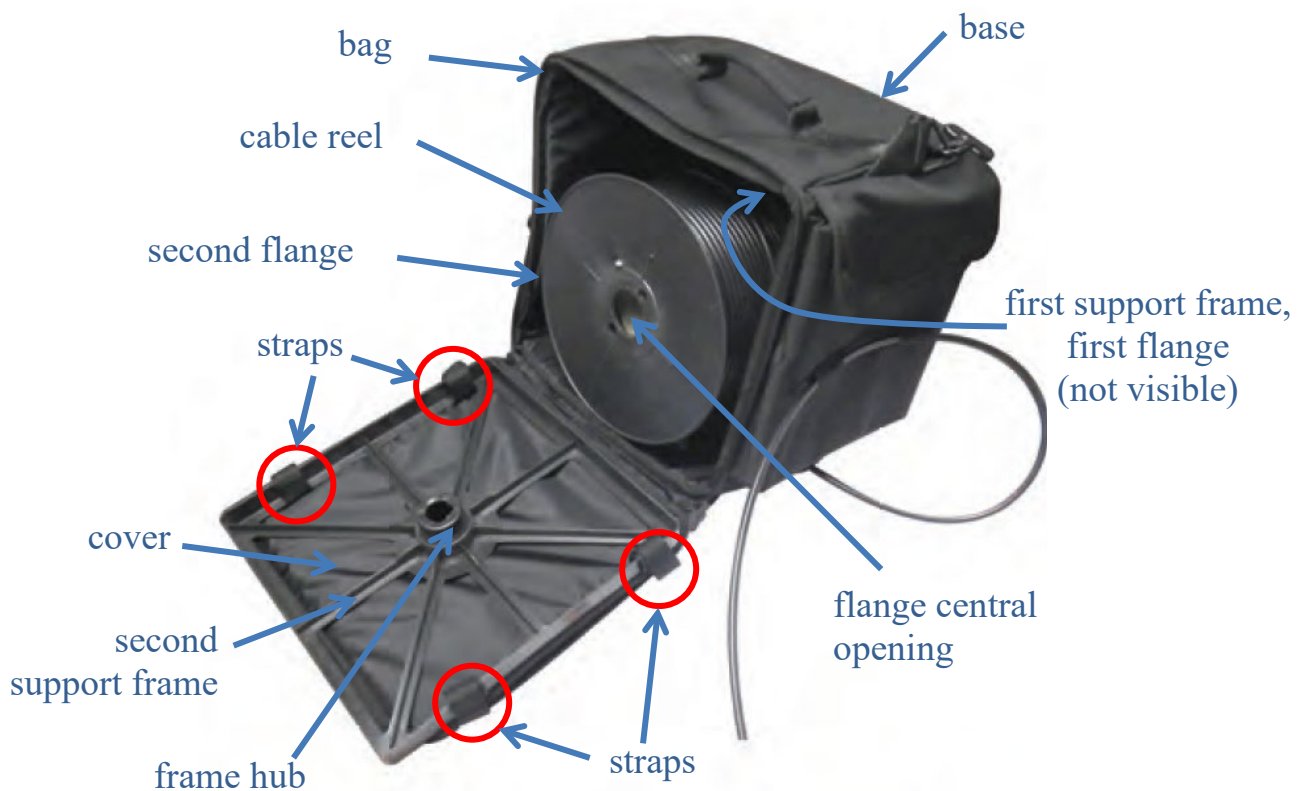
Brochure

Ex. 1001, FIG. 1 (annotated); *Brochure* (annotated).

As shown above, the '957 patent discloses a cover of a bag 101 that provides access to the bag and a base of the bag opposite the cover. *See* Ex. 1001, 3:32-36;

Ex. 1002, ¶71. Likewise, *Brochure* discloses a cover of a bag that provides access to the bag and a base of the bag opposite the cover. *Brochure*; Ex. 1002, ¶71.

As shown below, *Brochure* teaches the use of a frame hub, which gets “positioned in the cable reel flange opening” and is part of a support frame that is secured to the side panel (“cover”) via four straps. *Brochure* (Step 2); Ex. 1002, ¶72; *supra* § VII.A.2.



Brochure (annotated).

A POSITA would have recognized that the *Tote* bag would have included, or it would have been obvious to include, a duplicate support frame secured via straps

to the base side of the bag in the same manner as the support frame is secured via straps to the opposite cover side of the bag, as shown above and discussed in § VII.A.2 and below (Ex. 1002, ¶73):

- First, as explained above, since *Brochure* discloses that Step 1 in its installation method is to “[i]nsert the cable reel into the bag **so that the flange center hole fits over the frame hub**,” a POSITA would have readily recognized that if the “flange center hole [is to] fit[] over the frame hub” when it is inserted into the bag, a frame hub necessarily must have been previously positioned on the inside surface of the base of the bag. *Supra* § VII.A.2; *Brochure* (emphasis added); Ex. 1002, ¶73.
- Second, as also explained above, duplicate support frames on both sides of cable reels were notoriously old and well known at the time of the alleged invention because of their simplicity and cost savings resulting from having to manufacture only one part. *Supra* § VI; Ex. 1002, ¶73. For example, *Blunt* (*Blunt*, also assigned to PPC—manufacturer of the *Tote* bag) discloses the use of such a duplicate frame structure (guide components 58", 60") on the inside surfaces of both the cover (lid 30") and base (bottom wall 18") of a cable reel container (container 12") to rotatably support a cable reel (cable reel 34") in the container. *Blunt*,

[0093], [0095], [0097], [0082], FIG. 11. Likewise, *Johanson* (Ex. 1013) discloses the use of a pair of duplicate end plates 14 (duplicate support frames) that are positioned in a mirror-symmetric manner on opposite sides of its spool container (box 12) to support the spool 16 at opposite ends. *Johanson*, 2:60-65, 3:5-10. And *Wilkinson* (Ex. 1014) discloses the use of a pair of identical end plates 16 (duplicate support frames) secured to opposite sides of its spool container (box 12) to support the spool 40 at opposite ends. *Wilkinson*, 2:14-19, 2:42, 3:54-57. Likewise, *Galgano* (Ex. 1011) discloses the use of identical left and right caddies 200, 204 (duplicate support frames) that are positioned on opposite sides of its spool container (carton 10) to support its cable reel 202 at opposite ends. *Galgano*, 3:17-20, 3:58-67, 4:1-30. With this background knowledge, a POSITA would have understood that the *Tote* bag along with its installation instructions as disclosed in *Brochure* would have a duplicate support frame secured to the base of the bag to support a cable reel for cable payout and that the *Tote* bag would not work without a duplicate support frame secured to the base of the bag. Ex. 1002, ¶73; *supra* § VII.A.2.

- Third, a POSITA would have recognized that, due to its flexibility, if the base side of the *Tote* bag does not have a support frame similar to

that on its cover, the bag will not retain the shape illustrated in the figure above. Ex. 1002, ¶73; *supra* § VII.A.2.

- Fourth, a POSITA would have recognized that, if the base side of the *Tote* bag does not have a support frame that is the same or similar to that on its cover, when the bag is lifted using its handle (visible in the figure above), the side of the bag near the base would move inwards and collapse on the side of the cable reel (in the bag) and hinder its rotation (when the end of the cable outside the bag is pulled for payout of the cable). Ex. 1002, ¶73; *supra* § VII.A.2.
- And fifth, *Brochure* teaches securing a support frame to the bag cover to aid in positioning of the frame because the straps would keep the frame in the correct position as the cover is closed. Ex. 1002, ¶73. Similarly securing the interior support frame mentioned in the instructions would have the same result—it would allow the interior frame to be kept in the correct position while the reel is inserted into the bag and rotates for cable payout. Ex. 1002, ¶73; *supra* § VII.A.2.

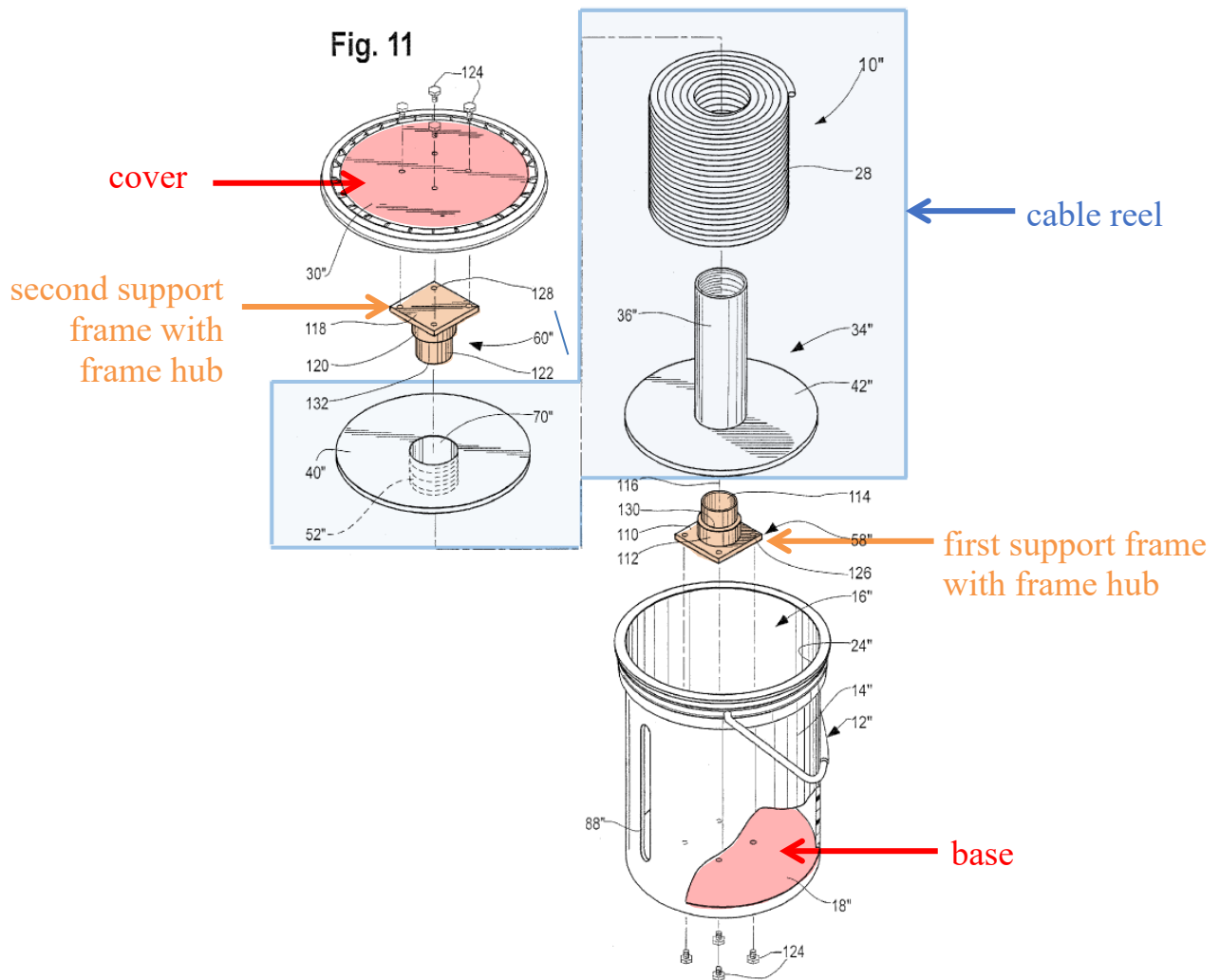
In addition, the courts have found that “[i]t is well settled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced.” *In re Harza*, 274 F.2d 669, 671 (CCPA 1960) (affirming obviousness rejection where claimed invention only differed over the prior art by the

addition of a second rib where the prior art showed only one rib). As early as December 1876, the Supreme Court considered the patentability of a claim directed to a circular saw with two deflecting plates on opposite sides of a saw when the use of one deflecting plate on one side of the saw was known, and that the second deflecting plate was attached and used in the same manner as the first deflecting plate, just at the opposite side of the saw. *Dunbar v. Myers*, 94 U.S. 187, 195-200 (1876). The Court held that the claim was invalid and explained how any craftsmen in the field would know how to arrange the second plate on the one side of the saw in the same manner it is arranged on the opposite side and there was no skill or ingenuity involved. *See id.* at 197-200; *see also Peters v. Hanson*, 129 U.S. 541, 550-53 (1889) (ruling that claims to an improvement of a carriage dash-frame of using two bolt holes in the frame were invalid because it was well known to use bolts to secure components and to provide for multiple bolt holes to allow for adjustments, and therefore, the claim was only an “application[] of old devices to new uses, not involving invention”).

Here, as in *Dunbar*, the part being duplicated was old and well known in the art at the time of the alleged '957 patent invention. Specifically, *Brochure* discloses securing a support frame with a frame hub on the cover side of the cable reel with four straps such that the frame hub is disposed in the cable reel flange opening (when the cover is closed). *Brochure*. Just like the duplication of the deflector plate in

Dunbar to the opposite side, there is no skill or ingenuity required to duplicate the support frame secured to the cover of the *Tote* bag to the opposite side—the base. Indeed, the facts are even stronger here because, unlike the prior art in *Dunbar*, *Brochure* itself discloses and suggests a similar frame on the opposite side as discussed above and in Section VII.A.2. Accordingly, a POSITA would have found it obvious to provide a duplicate support frame secured to the base of the *Tote* bag in the same manner as *Brochure* discloses securing a support frame to the bag cover.

Furthermore, a POSITA would have readily recognized that *Blunt* (also assigned to PPC—manufacturer of the *Tote* bag) teaches the use of such a duplicate frame structure secured to both the cover and base sides of a cable reel container to rotatably support a cable reel in the container. Ex. 1002, ¶74.



Blunt, FIG. 11 (annotated).

As shown above, *Blunt* discloses installing cable reel 34" in a container 12" using a pair of guide components 58", 60" that have "the same or a similar construction." *Id.*, [0093], [0095]; Ex. 1002, ¶75. *Blunt* also discloses that both guide components 58", 60" are secured to the cover and base sides of container 12" "using [four] similar fasteners 124." *Blunt*, [0095]. Guide component 58" is secured to the bottom wall 18" of container 12" using four fasteners 124, and guide component 60"

is secured to the inside surface of the lid 30" of container 12" using four fasteners 124. *Blunt*, [0095]; Ex. 1002, ¶75. Reel 34" is then disposed in container 12" such that the shafts 114, 122 of guide components 58", 60" project into bore 70" of reel 34" through opposite ends to rotatably capture the reel 34" between guide components 58", 60". *Blunt*, [0097].

A POSITA would have recognized that *Blunt*'s guide components 58", 60" are similar to and serve the same function as the frame hubs on the cover and base of the *Tote* bag, which enter the cable reel central opening from opposite ends and support both ends of the cable reel and their respective support frames. Ex. 1002, ¶76. Accordingly, based on the teachings of *Blunt*, it would have been obvious for a POSITA to secure the frame hub in Step 1 of *Brochure* to the base of the *Tote* bag in the same manner as the frame hub in Step 2 is secured to the cover of the *Tote* bag to hold the cable reel for cable payout. *Id.* For example, it would have been obvious for a POSITA to secure the frame hub to the base of the *Tote* bag by securing a support frame, of which the frame hub is part of, to the base of the bag via straps as securing the support frame with the frame hub to the bag cover via straps. *Id.*

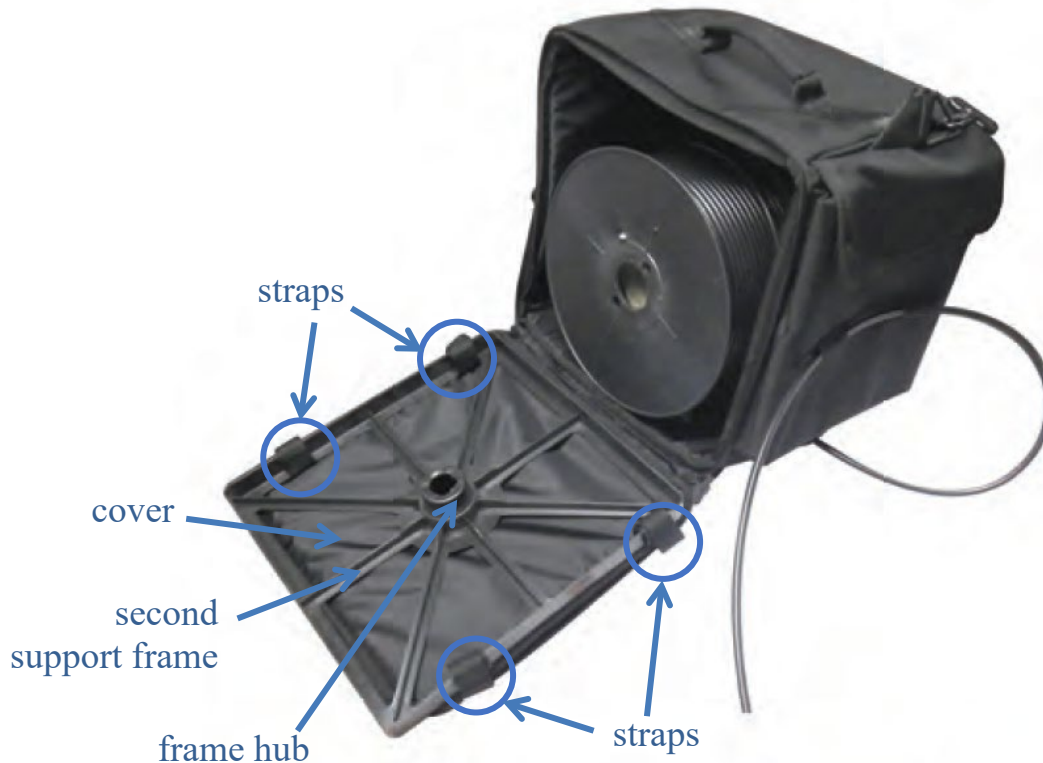
Securing the frame hub in Step 1 of *Brochure* to the base of the *Tote* bag, based on the teachings of *Blunt*, would merely have been the use of a known and duplicative technique to improve similar devices and methods in the same way. *Id.* ¶77. As discussed above in Section VIII.A, both *Brochure* and *Blunt* disclose

containers to transport a cable reel to payout cables at different locations; both *Blunt*'s and *Brochure*'s cable reels have a similar structure; and both *Brochure* and *Blunt* disclose captively and rotatably supporting the flanges on opposite sides of the reel with duplicate frame hubs. *Id.* In light of the same function and similar structures of both containers and both cable reels, a POSITA would have readily recognized that securing the cable reel in the *Tote* bag in a similar manner as in *Blunt* would merely have been the use of the same known technique to improve similar devices and methods in the same way to obtain predictable results. *Id.*; *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-18 (2007).

Thus, *Brochure*, alone or in combination with *Blunt*, renders the step of securing a first support frame to a base of a bag obvious. Ex. 1002, ¶¶71-78.

3. “securing a second support frame to a cover of the bag;”

Brochure discloses the step of securing a second support frame to a cover of a bag as shown below and as described in *Brochure*'s installation instructions. *Brochure*; Ex. 1002, ¶¶79-80.



Brochure (annotated).

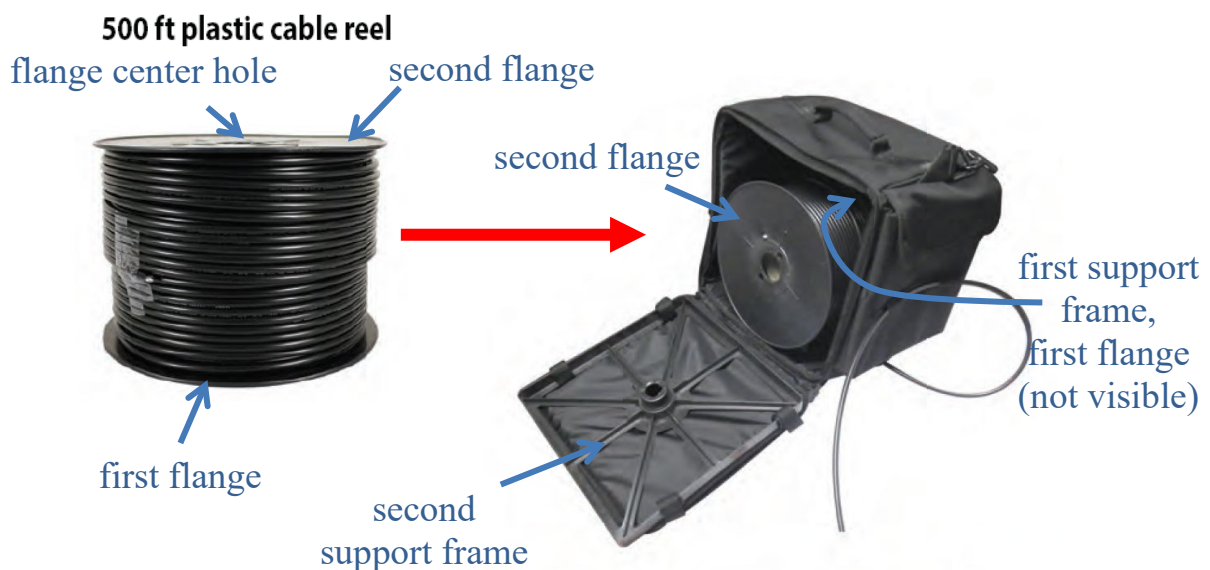
For instance, *Brochure*'s installation instructions disclose that, after Step 1 of inserting the "cable reel into the bag so that the flange center hole fits over the frame hub," Step 2 is to "[c]lose the side panel [to] ensure that the frame hub is positioned in the cable reel flange opening." *Id.* And from at least the above figure, a POSITA would have readily recognized that *Brochure* teaches that the frame hub, which gets positioned in the cable reel flange opening when the side panel is closed, is part of a support frame that is secured to the bag cover using straps. Ex. 1002, ¶80. This

support frame corresponds to the claimed “second support frame.” *Id.* Accordingly, *Brochure* discloses securing a second support frame to a cover of a bag. *Id.*

4. “placing a first flange on the first support frame, wherein the first flange includes a first hub portion;”

Brochure, alone or in combination with *Blunt*, renders this limitation obvious.

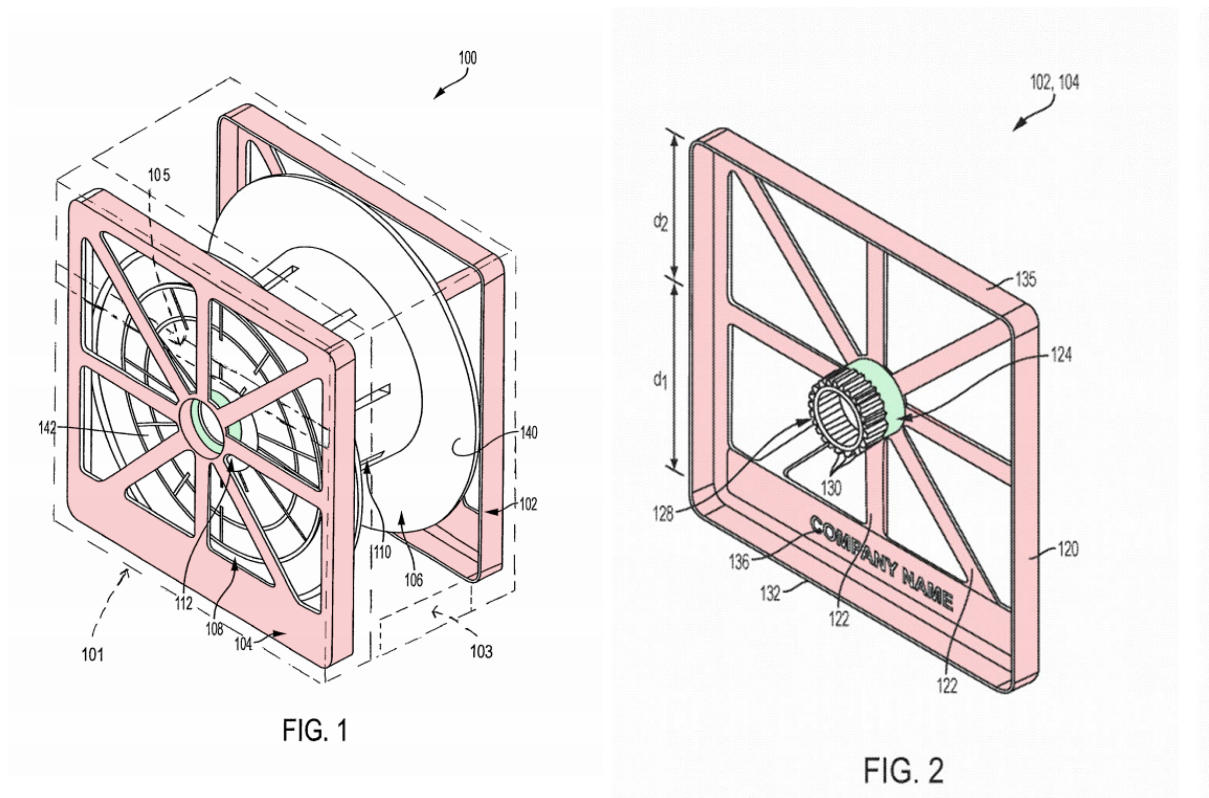
Id. ¶¶81-85.



Brochure (annotated).

Brochure alone discloses “placing a first flange on the first support frame.” Ex. 1002, ¶82. As shown above, *Brochure* discloses a cable reel that includes first and second flanges on both sides of the reel. *Brochure*; Ex. 1002, ¶82. *Brochure*’s installation instructions also disclose that Step 1 is to “[i]nsert the cable reel into the bag so that the flange center hole fits over the frame hub.” *Brochure*. In other words, *Brochure* discloses a cable reel that is inserted into the bag such that a flange center

hole of the first flange (see annotations in figure above) is designed to fit over a frame hub (not visible in the figure above), which is part of a first support frame secured to the base of the bag. Ex. 1002, ¶82; *supra* § VIII.B.2. A POSITA would have readily recognized that *Brochure* teaches that the flange (“first flange”), on which the flange center hole is provided, is placed on the frame hub of the first support frame in the same manner disclosed in the ’957 patent shown below (Ex. 1002, ¶82):

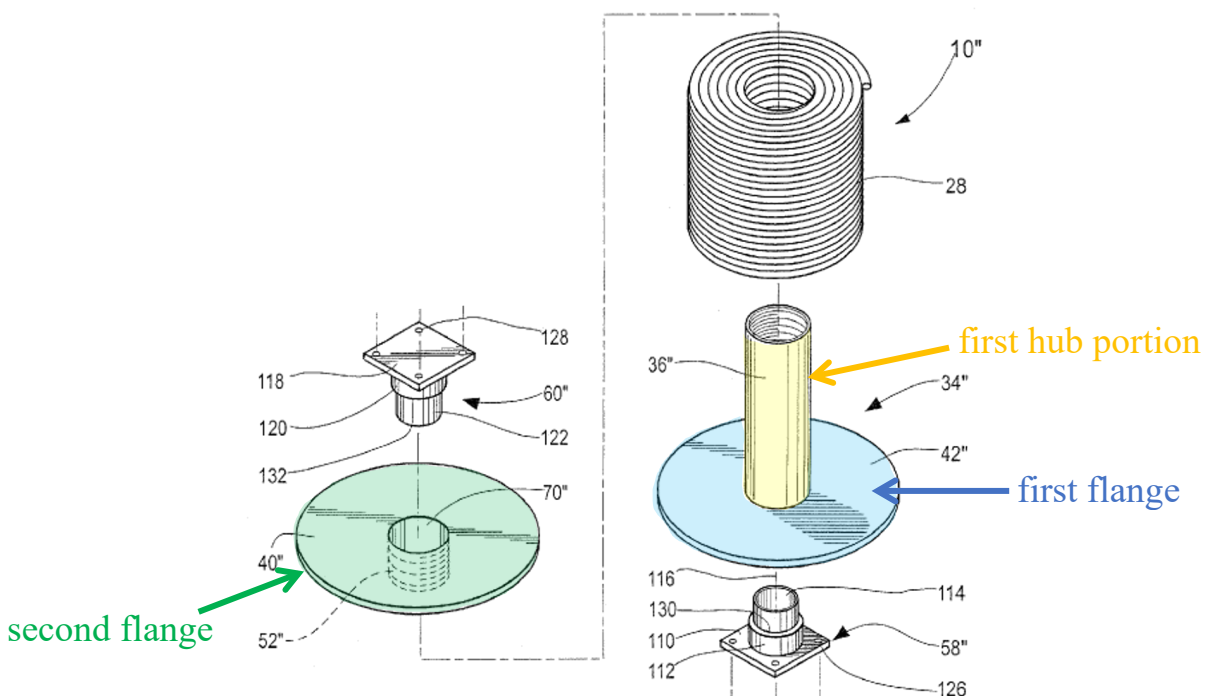


Ex. 1001, FIGS. 1-2 (annotated).

In addition, *Brochure* in combination with *Blunt* discloses “placing a first flange on the first support frame.” Ex. 1002, ¶83. As discussed in Section VIII.B.2,

in *Brochure* modified by *Blunt*, the frame hub of Step 1 is secured to the base of the *Tote* bag and the cable reel is supported between the frame hubs on the base and the cover. Ex. 1002, ¶83. To support the cable reel between the frame hubs, *Brochure* discloses the use of flanges on opposite ends of the cable reel that are designed to be in contact with the frame hubs. *Brochure*; Ex. 1002, ¶83. Thus, in *Brochure*, as modified by *Blunt*, the first flange of the *Brochure*'s cable reel is placed on the frame hub. Ex. 1002, ¶83.

Brochure in combination with *Blunt* also discloses that “the first flange includes a first hub portion.” *Id.* ¶84. As discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (*id.*):



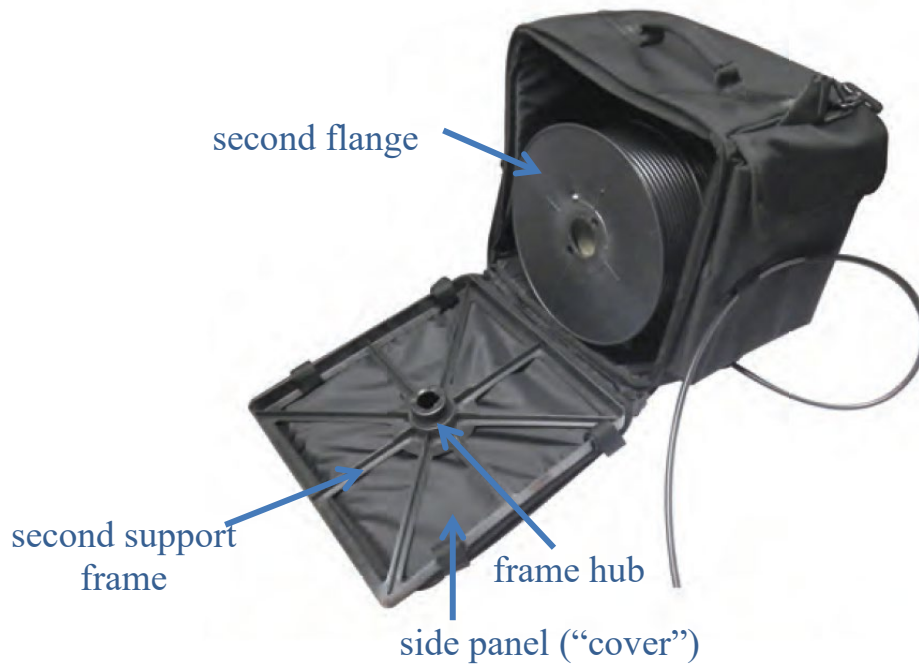
Supra § VIII.A; *Blunt*, FIG. 11 (annotated).

As shown above, flange 42" of *Blunt*'s reel 34" corresponds to the claimed "first flange" and core 36" corresponds to the claimed "first hub portion." Ex. 1002, ¶85. *Blunt* discloses that "core 36 and flange 42 are formed together as an inseparable unit." *Blunt*, [0073]. *Blunt* also discloses that "reel 34" includes a two-component construction, where (1) the first component includes a combined flange 42" ("first flange") and core 36", and (2) the second component includes a separate flange 40" ("second flange") with an associated stub component 52". *Id.*, [0096]; Ex. 1002, ¶85. Since the combined flange 42" and core 36" are formed together as an inseparable unit and/or make up the first component of the two-component reel 34", *Blunt*'s flange 42" ("first flange") includes the core 36" ("first hub portion"). Ex. 1002, ¶85.

5. **"placing a second flange on the second support frame, wherein the second flange includes a second hub portion, wherein either the first hub portion or the second hub portion includes an elongated annular wall having a receiving area and the other of the first hub portion and the second hub portion includes a truncated annular wall receivable in the receiving area; and"**

Brochure in combination with *Blunt* renders this limitation obvious. *Id.* ¶¶86-

94.

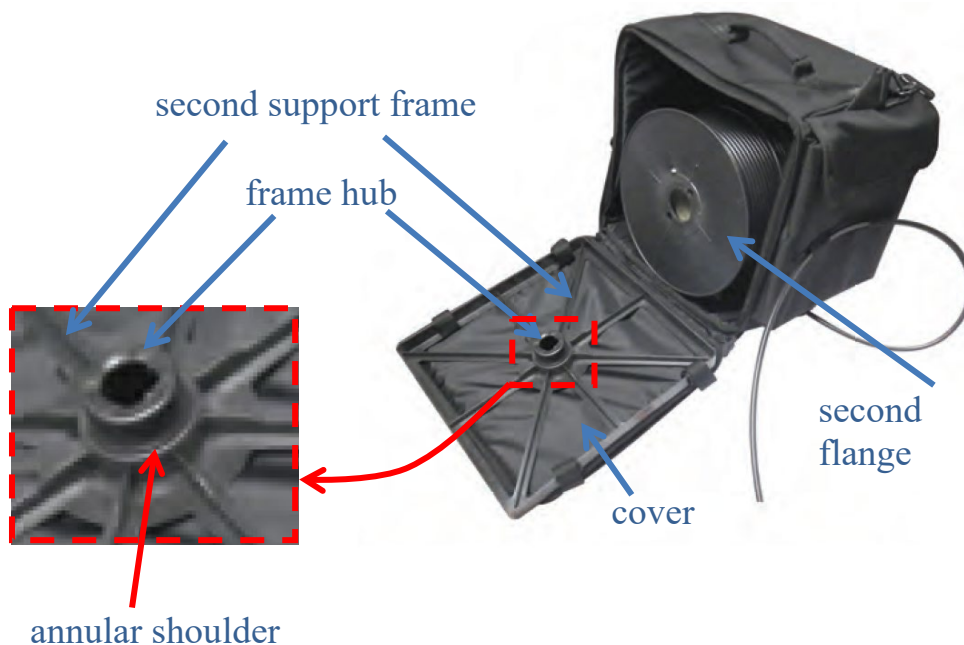


Brochure (annotated).

As shown above, *Brochure*'s cable reel includes a second flange. *Id.* And as shown above and stated in *Brochure*'s installation instructions, *Brochure* discloses that the side panel ("cover") is closed to "ensure that the frame hub is positioned in the cable reel flange opening" after the cable reel has been inserted into the bag. *Id.* The support frame secured to the side panel ("cover") that the frame hub is a part of corresponds to the "second support frame." Ex. 1002, ¶87. Based at least on the configuration of the support frame, frame hub, and the cable reel in *Brochure* shown above, a POSITA would have readily recognized that, when the side panel is closed and the "frame hub is positioned in the cable reel flange opening," at least a portion

of the “second support frame” would be placed on the second flange of the cable reel. *Id.*

Indeed, *Brochure* discloses the step of “placing a second flange on the second support frame” in the same manner as disclosed in the ’957 patent. *Id.* ¶88. For instance, the ’957 patent expressly states that “the middle flange support 124 of the frame secured to the cover of the bag [i.e., the second support frame 104] fits inside of the opening 144 of the other flange [the second flange 108] **when the bag is closed.**” Ex. 1001, 5:34-37 (emphasis added). In the same manner, *Brochure* discloses that when the side panel of the bag is closed, the frame hub of the second support frame, which is attached to the side panel, fits into the opening of the second flange and contacts the flange. *Brochure*; Ex. 1002, ¶88.



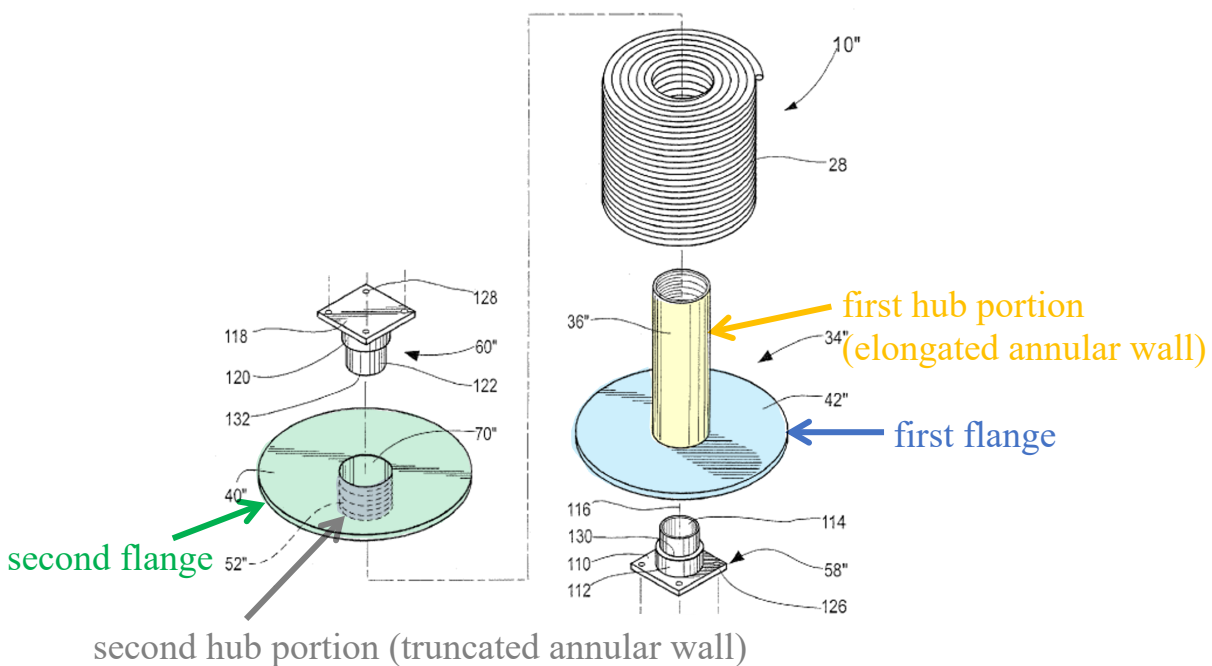
Brochure (annotated).

Moreover, a POSITA would have readily recognized that, in the *Tote* bag, at least a portion of the frame hub or the second support frame will necessarily contact the cable reel flange when the side panel (“cover”) is closed and when the frame hub fits into the flange opening. Ex. 1002, ¶89. A POSITA would have recognized that, in the *Tote* bag as modified by *Blunt*, the cable reel is captively and rotatably located between two support frames—the first support frame with a frame hub on the base side and the second support frame with a frame hub on the cover side. *Id.* Therefore, when the cable reel rotates on the two frame hubs (when the cable is pulled from outside the bag for payout), at least a portion of the second flange of the cable reel will contact the second support frame, such as its frame hub. *Id.*

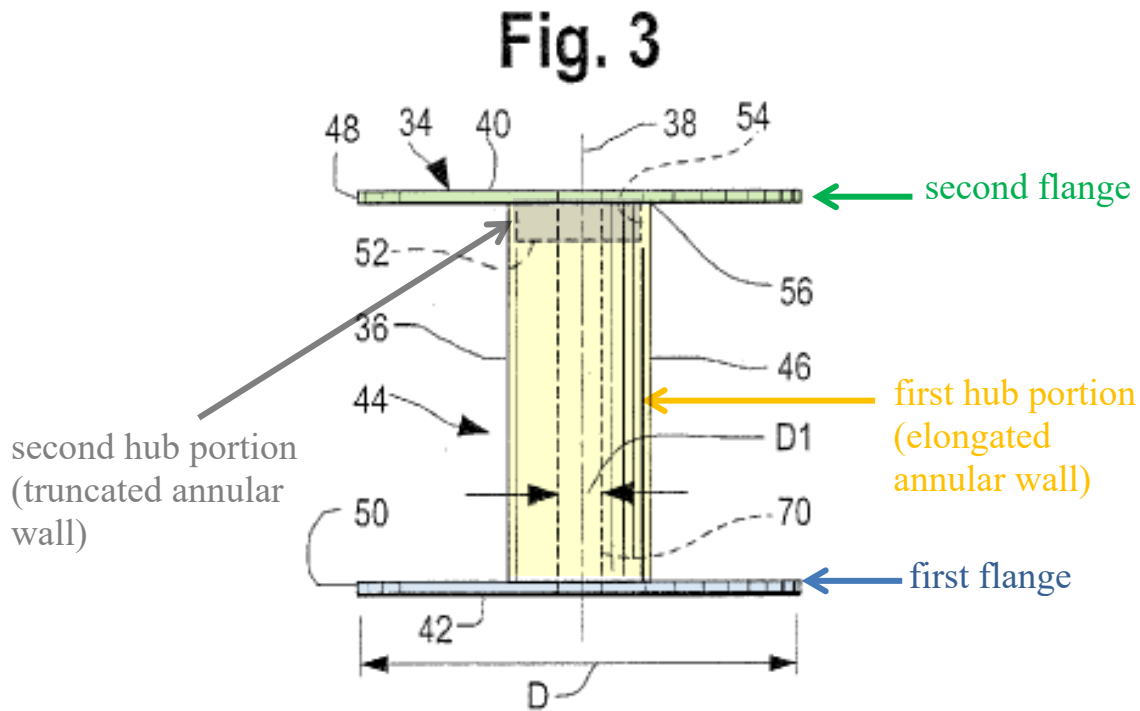
In addition, in *Blunt*, “reel 34” is ... captively located between facing, annular shoulders 130, 132 defined on the guide components 58", 60".” *Blunt*, [0097]. Based on the teachings of *Blunt*, a POSITA would have known that the annular shoulder of the frame hub would contact the cable reel flange in the periphery of the flange opening to captively and rotatably locate the cable reel between the opposing frame hubs and prevent rattling. Ex. 1002, ¶90. In other words, based on at least the teachings of *Blunt* and *Brochure*, a POSITA would have readily recognized that supporting the cable reel between the opposing support frames necessarily would have rotatably secured the cable reel in the *Tote* bag such that the flanges on either

side of the cable reel contact their respective support frames. *See Blunt*, [0097]; Ex. 1002, ¶90.

Furthermore, *Brochure* in combination with *Blunt* discloses the “wherein” clauses recited in this limitation. As discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (Ex. 1002, ¶91):



Supra § VIII.A; *Blunt*, FIG. 11 (annotated).



Supra §§ VII.B, VIII.A; *Blunt*, FIG. 3 (annotated).

As shown above, in this reel structure, flange 40" corresponds to the claimed "second flange" and stub component 52" corresponds to the claimed "second hub portion." Ex. 1002, ¶92. *Blunt* also discloses that reel 34" includes a two-component construction, where (1) the first component includes a combined flange 42" ("first flange") and core 36", and (2) the second component includes a separate flange 40" ("second flange") with an associated stub component 52". *Blunt*, [0096]; Ex. 1002, ¶92. Since the combined flange 40" and stub component 52" make up the second component of the two-component reel 34", a POSITA would readily understand that (1) *Blunt*'s flange 40" ("second flange") includes the stub component 52" ("second

hub portion”); and (2) when the side panel of the *Tote* bag is closed, the “second support frame” secured to the side panel of the bag necessarily will be placed on flange 40" of this reel structure. Ex. 1002, ¶92.

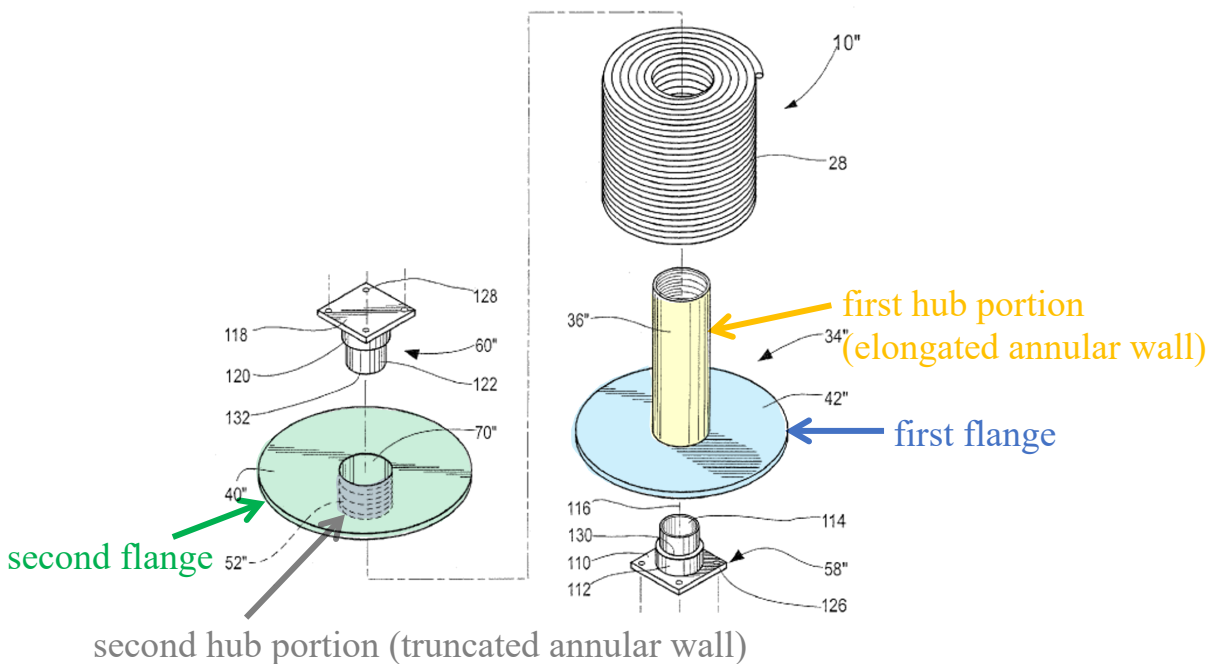
In addition, as shown above, in this reel structure, *Blunt*'s core 36" (“first hub portion”) includes an “elongated annular wall” that extends around bore 70", and *Blunt*'s stub component 52" (“second hub portion”) includes a truncated annular wall that extends around bore 70". *Id.* ¶93.

And with respect to Figure 3 shown above, *Blunt* also discloses that flange 40" (“second flange”) includes “a stub component 52 that can be *nested* in a complementary receptacle 54 on the core 36. The stub component 52 and core 36 may be *releasably maintained* together through frictional engagement” *Blunt*, [0073] (emphases added). A POSITA would have understood that stub component 52" (“truncated annular wall”) is receivable in a complementary receptacle 54 (“receiving area”) of core 36" (“elongated annular wall”). Ex. 1002, ¶94.

6. “placing at least a portion of the truncated annular wall within the receiving area of the elongated annular wall.”

Brochure in combination with *Blunt* renders this limitation obvious. *Id.* ¶¶95-99.

As discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (*id.* ¶96):



Supra § VIII.A; *Blunt*, FIG. 11 (annotated).

As discussed above and below, *Blunt* teaches that this structure would be assembled by “placing the truncated annular wall within the receiving area of the elongated annular wall.” Ex. 1002, ¶97; *supra* § VIII.B.5.

With reference to Figure 3 below, *Blunt* discloses that

flange 40 is provided with a stub component 52 that can be ***nested*** in a complementary receptacle 54 on the core 36. The stub component 52 and core 36 may be ***releasably maintained*** together through frictional engagement, or otherwise as by the use of cooperating threads. With this arrangement, the flange 40 can be selectively separated from the core 36 to allow the core end 56 to be directed through a pre-coiled supply of cable 28.

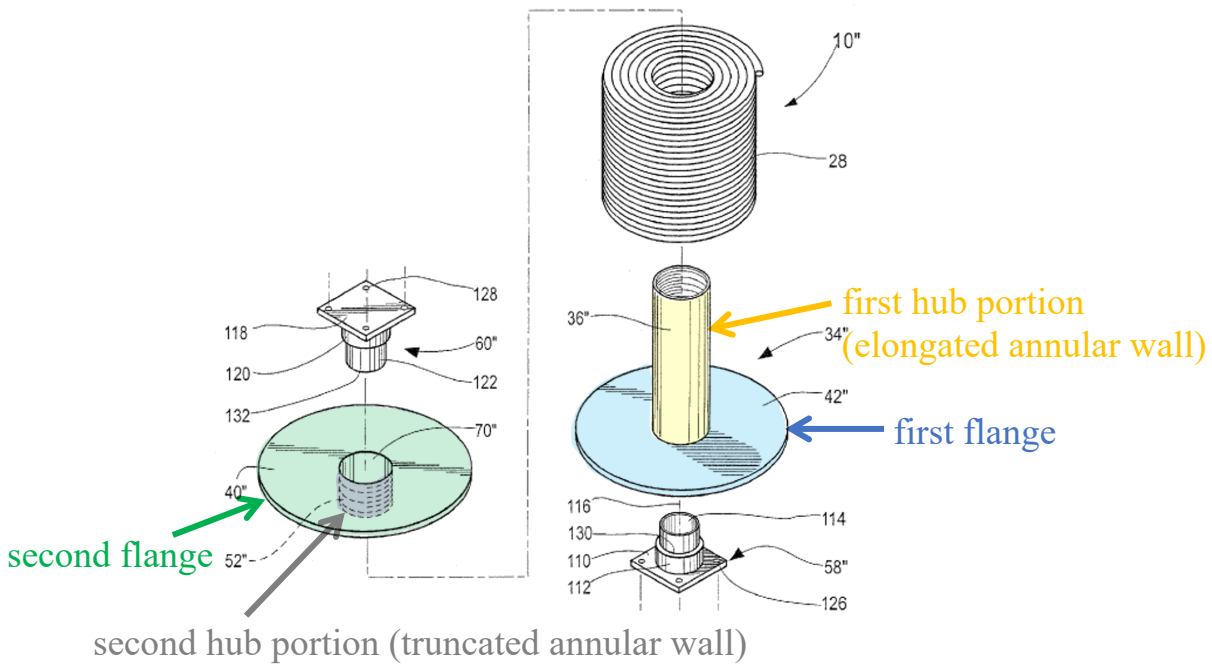
Blunt, [0073] (emphases added).

A POSITA would have understood that *Blunt* discloses that reel 34" would be assembled by directing a supply of cable 28 through core 36" ("elongated annular wall") of flange 42" and then inserting stub component 52" ("truncated annular wall") of flange 40" within the receiving area of core 36" ("elongated annular wall"). Ex. 1002, ¶99. The combination of *Brochure* and *Blunt* thus renders obvious the step of "placing at least a portion of the truncated annular wall within the receiving area of the elongated annular wall." *Id.*

C. Claim 10: "The method of claim 9, further comprising the step of placing a coil of cable on the elongated annular wall."

Brochure in combination with *Blunt* renders obvious claim 10. *Id.* ¶¶100-103.

As discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (*id.* ¶101):

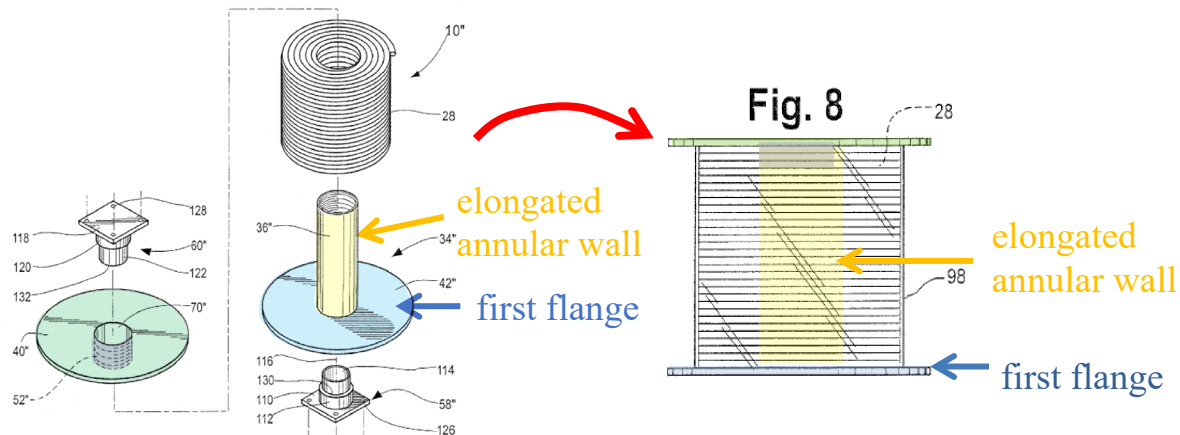


Supra § VIII.A; *Blunt*, FIG. 11 (annotated).

As discussed above and below, in this reel structure, *Blunt*'s core 36 ("first hub portion") includes an "elongated annular wall" that extends around bore 70", and *Blunt*'s stub component 52 ("second hub portion") includes a truncated annular wall that extends around bore 70". Ex. 1002, ¶102.

Blunt discloses that "cable 28 can be pre-coiled and slid axially over the core 36 or wrapped directly against the core 36." *Blunt*, [0072]. *Blunt* also discloses that "the flange 40 can be selectively separated from the core 36 to allow the core end 56 to be *directed through a pre-coiled supply of cable 28*." *Id.* [0073] (emphasis added). Thus, as shown below, a POSITA would have understood that *Blunt*'s pre-

coiled supply of cable 28 is a coil of cable for replenishing *Blunt*'s reel 34" by being placed on the elongated annular wall of core 36". Ex. 1002, ¶103.

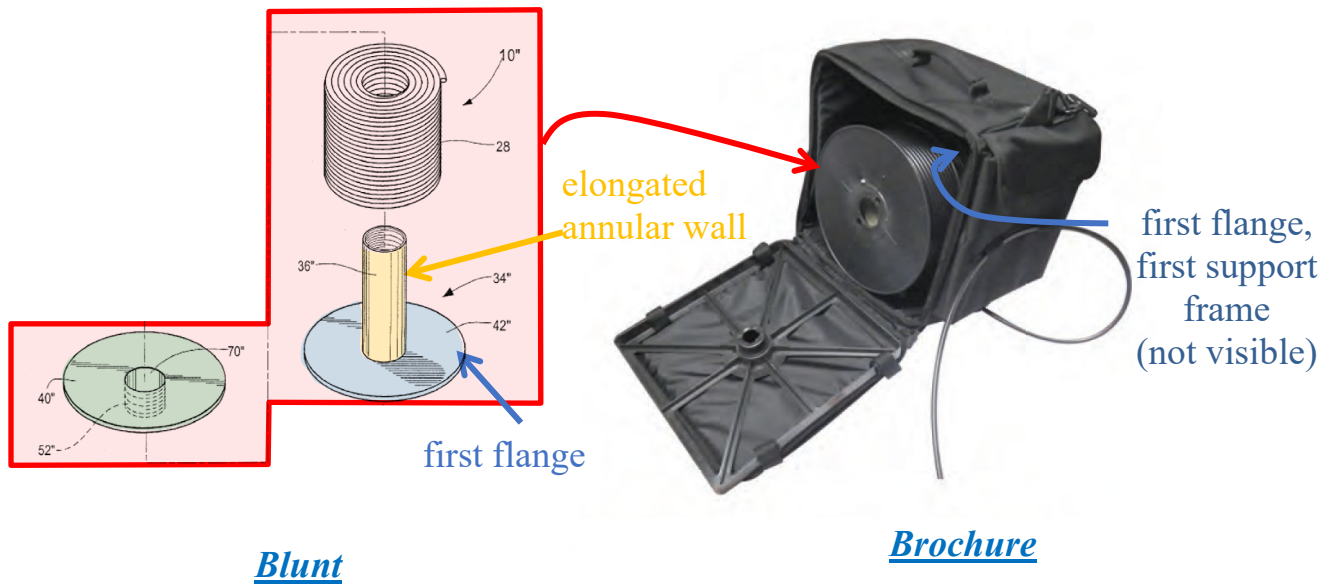


Blunt, FIG. 11 (annotated), FIG. 8 (annotated).

D. Claim 11: “The method of claim 10, wherein the coil of cable is arranged on a side thereof in the bag.”

Claim 11 depends from claim 10. *Brochure* in combination with *Blunt* renders obvious claim 10. Ex. 1002, ¶¶104-105.

As shown below, in *Brochure* combined with *Blunt*, a POSITA would have understood that when flange 42" (“first flange”) is placed on the first support frame secured to the base of the bag and pre-coiled supply of cable 28 (“coil of cable”) is placed on core 36" (“elongated annular wall”), pre-coiled supply of cable 28 is arranged on a side thereof in the bag. Ex. 1002, ¶105.



E. **Claim 12:** “The method of claim 9, further comprising the step of dispensing cable of the coil of cable through a payout opening in the bag.”

Brochure in combination with *Blunt* renders obvious claim 12. Ex. 1002, ¶¶106-107.



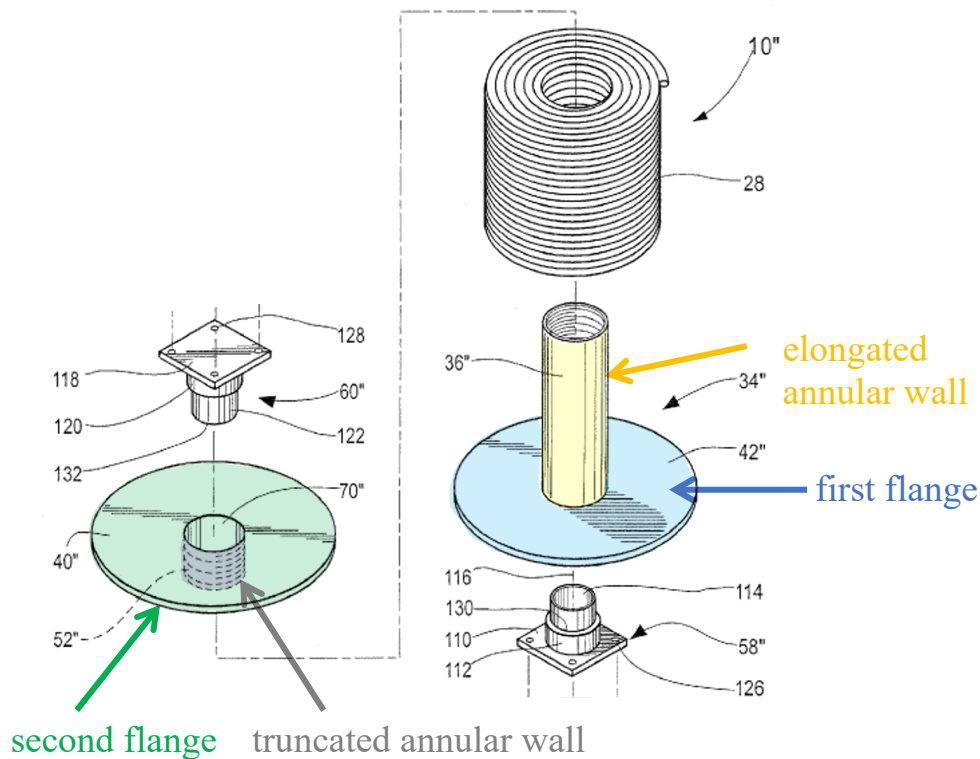
Brochure (annotated).

As shown above, *Brochure* discloses a payout opening “for smooth cable payout.” *Id.* *Brochure* also discloses inserting a cable reel into the bag such that “the cable pays straight across the bottom of the reel and out the opening of the bag,” and that “[w]hen cable is not in use, place the end of the cable in the elastic holders on the front.” *Id.* The peripheral wall 14 of *Blunt*’s container 12 also has an opening 88 through which the free end of the cable of the cable reel 34 supported in its container would be directed and drawn from out of the container. *Blunt*, [0082], FIGS. 2, 13. In *Brochure* combined with *Blunt*, a POSITA would have understood to dispense cable of the coil of cable of *Brochure*’s reel as modified by *Blunt* (*supra* § VIII.A) through *Brochure*’s payout opening as taught by *Brochure*. Ex. 1002, ¶107.

F. Claim 13: “The method of claim 10, further comprising the step of removing the truncated annular wall from the elongated annular wall for replacement of the coil of cable with another coil of cable.”

Claim 13 depends from claim 10. *Brochure* in combination with *Blunt* renders obvious claim 13. *Id.* ¶¶108-113.

As discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (*id.* ¶109):

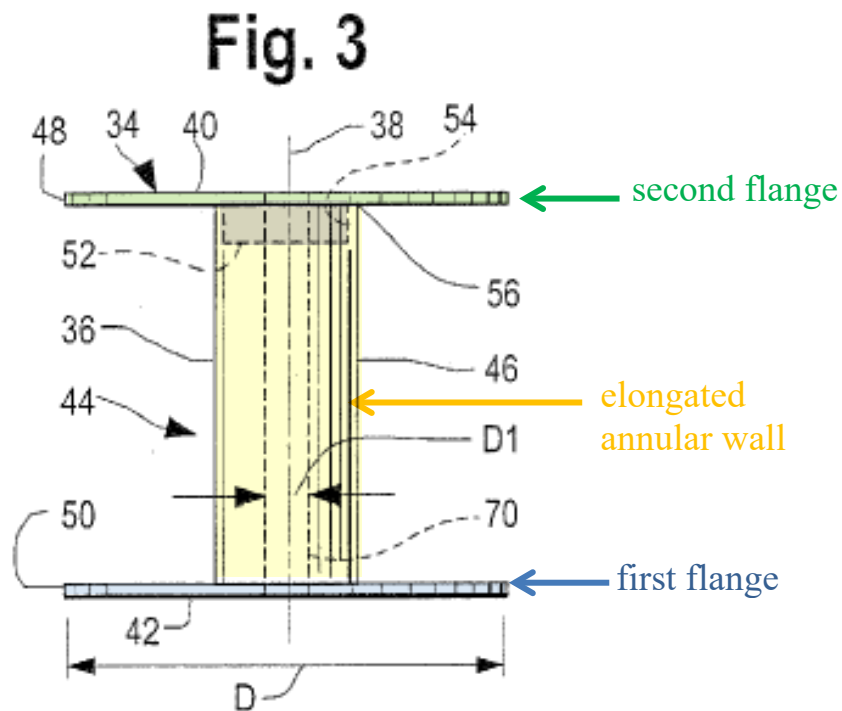


Supra § VIII.A; *Blunt*, FIG. 11 (annotated).

Blunt discloses a reusable reel that is releasably maintained, selectively separated, and re-used. Ex. 1002, ¶110. With reference to Figure 3 below, *Blunt* discloses that

flange 40 is provided with a stub component 52 that can be nested in a complementary receptacle 54 on the core 36. The stub component 52 and core 36 may be ***releasably maintained*** together through frictional engagement, or otherwise as by the use of cooperating threads. With this arrangement, the flange 40 can be ***selectively separated*** from the core 36 to allow the core end 56 to be directed through a pre-coiled supply of cable 28.

Blunt, [0073] (emphases added).



Id., FIG. 3 (annotated). *Blunt* further explains that “once the supply of cable 28 is exhausted[,], ... **a new supply 26 of cable 28 [is] to be replaced, ... utilizing the reel 34 with a replenished supply of the cable 28.**” *Id.*, [0089] (emphasis added).

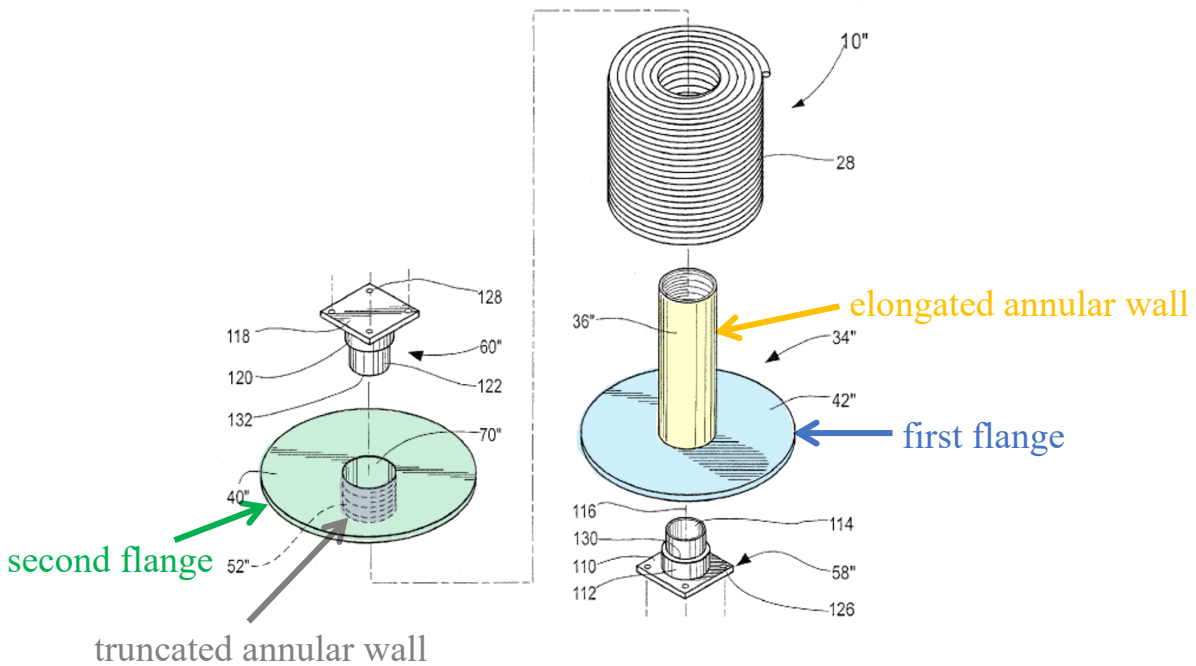
Therefore, because of this separable construction of reel 34", a POSITA would have understood that when the supply of cable 28 in reel 34" is exhausted, stub component 52 (“truncated annular wall”) is removed from core reel 36" (“elongated annular wall”) to allow a new supply of cable 28 (“another coil of cable”) to be loaded onto core 36" (“elongated annular wall”) by directing the core end through the cable supply. Ex. 1002, ¶112.

As discussed above, it would have been obvious for a POSITA to modify *Brochure*'s reel with *Blunt*'s reel structure or substitute *Blunt*'s reel 34" into *Brochure* so that the supply of cable would be replenished when it is exhausted, as commonly known in the art. *Supra* § VIII.A; Ex. 1002, ¶113. Thus, a POSITA would have readily recognized that *Brochure*'s reel as modified by *Blunt* would be replenished with another coil of cable by removing stub component 52 ("truncated annular wall") from core reel 36" ("elongated annular wall"). Ex. 1002, ¶113.

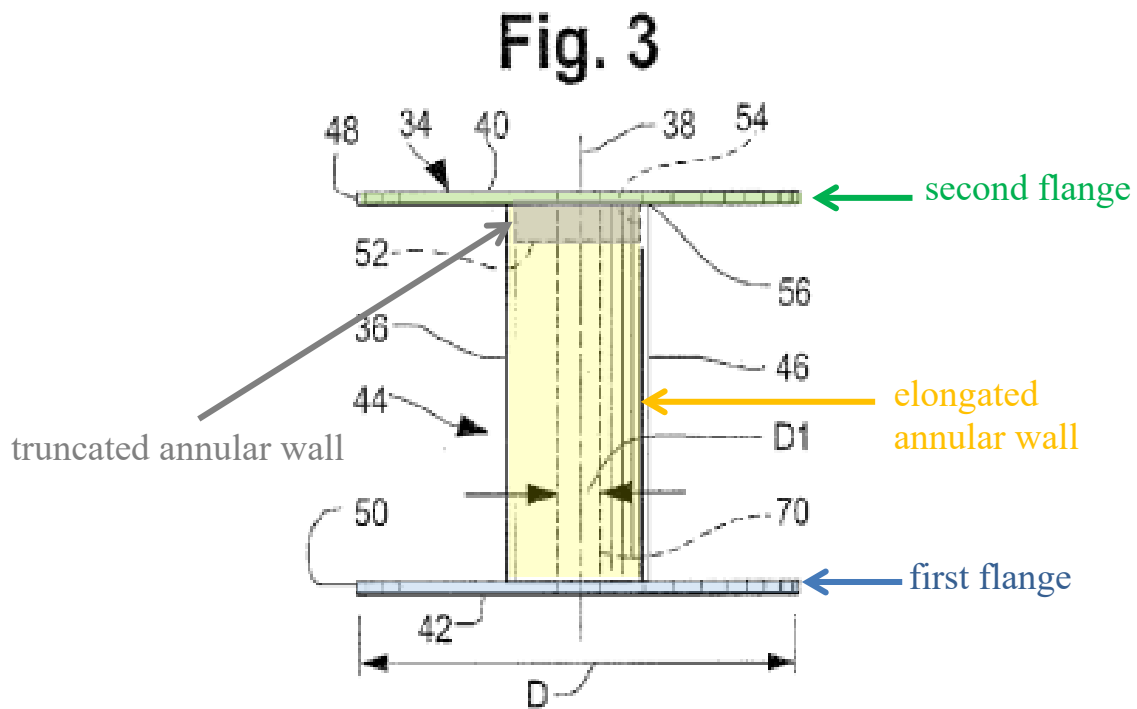
G. Claim 14: "The method of claim 10, wherein the coil of cable lacks a support reel prior to the step of placing the coil of cable on the elongated annular wall."

Claim 14 depends from claim 10. *Brochure* in combination with *Blunt* renders obvious claim 14. *Id.* ¶¶114-117.

As discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (*id.* ¶115):



Blunt, FIG. 11 (annotated); *supra* § VIII.A.



Blunt, FIG. 3 (annotated).

As shown above, *Blunt* discloses that the supply of cable 28 (“coil of cable”) lacks a support reel prior to being placed on core 36” (“elongated annular wall”). Ex. 1002, ¶116. For example, *Blunt* discloses that “cable 28 can be pre-coiled and slid axially over the core 36 or wrapped directly against the core 36.” *Blunt*, [0072]. Also, with respect to Figure 3 above, *Blunt* discloses that “the flange 40 can be selectively separated from the core 36 to allow the core end 56 to be directed through a ***pre-coiled*** supply of cable 28.” *Id.* [0073] (emphasis added). *Blunt* further explains that “once the supply of cable 28 is exhausted[,] ... ***a new supply 26 of cable 28 [is] to be replaced, ... utilizing the reel 34 with a replenished supply of the cable 28.***” *Id.* [0089] (emphasis added). Thus, a POSITA would have understood that *Blunt*’s pre-coiled supply of cable 28 lacks a reel prior to replenishing *Blunt*’s reel 34” by being slid over the core 36”. Ex. 1002, ¶116.

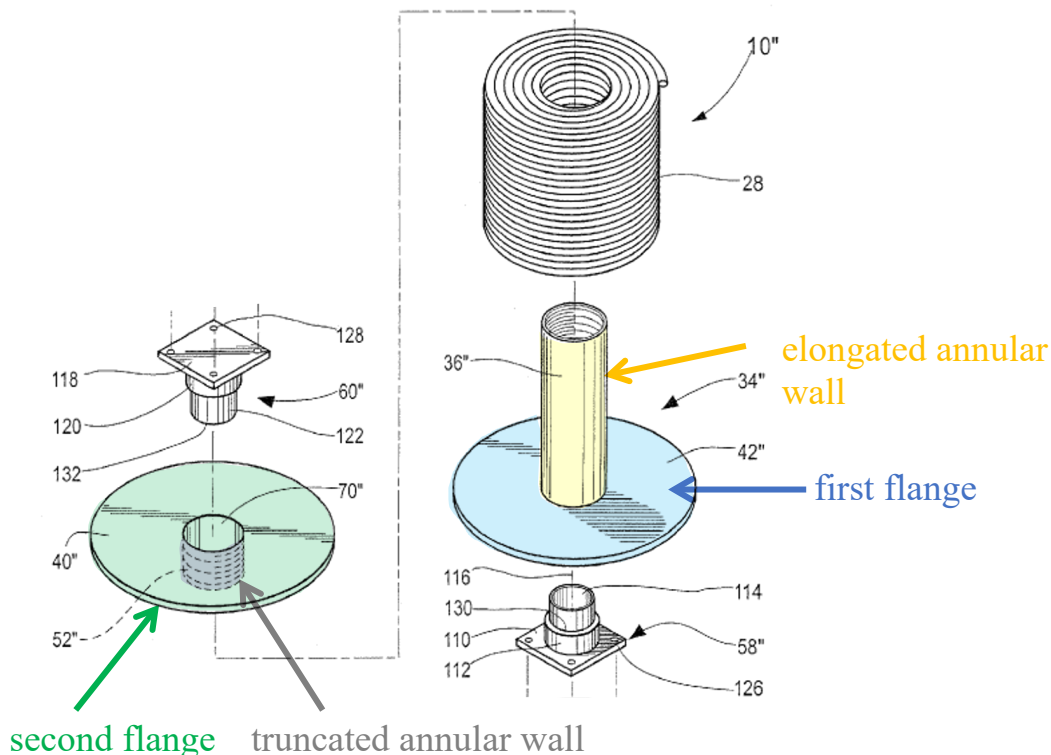
Furthermore, as discussed above, it was well known in the prior art that cable was commonly sold or provided without a central hub or reel, with numerous references teaching mechanisms for storing, transporting, and dispensing cable that did not come with a reel or central hub. *Id.* ¶117; *Blunt* (Ex. 1004); *Fontana* (Ex. 1005); *Hill* (Ex. 1040); *Lea* (Ex. 1041); *Browning* (Ex. 1042); *Huette* (Ex. 1043). Based on well-known knowledge in the art, a POSITA would have been motivated to place a reel-less cable coil on an elongated annular wall of *Brochure*’s reel as modified by *Blunt* to avoid the known problems, such as kinking or tangling,

associated with directly dispensing a reel-less cable coil. Ex. 1002, ¶117; *Huette*, 1:17-55, 3:19-32.

H. Claim 15: “The method of claim 10, wherein the step of placing the coil of cable on the elongated annular wall occurs before the step of placing the second flange to hold the coil of cable on the elongated annular wall and before the step of placing the second flange on the second support frame.”

Claim 15 depends from claim 10. *Brochure* in combination with *Blunt* renders obvious claim 15. Ex. 1002, ¶¶118-121.

As discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (*id.* ¶119):



Supra § VIII.A; *Blunt*, FIG. 11 (annotated).

As shown above, *Blunt* discloses that to assemble reel 34", (1) a coil of cable 28 is first slid axially over core 36" ("elongated annular wall"), and (2) then stub component 52" ("truncated annular wall") of flange 40" ("second flange") is inserted into a complementary receptacle 54 on core 36" to hold the coil of cable on core 36" between the flanges. *Blunt*, [0072]-[0073]; Ex. 1002, ¶120. In other words, *Blunt* discloses that the step of placing the coil of cable on the elongated annular wall of core 36" necessarily must occur *before* the step of placing flange 40" ("second flange") to hold the coil of cable on the elongated annular wall. Ex. 1002, ¶120. A POSITA would have understood that *Brochure*'s reel as modified by *Blunt* would have been assembled in the same way. *Id.*

Brochure discloses that the side panel, to which the second support frame is attached, is closed to "ensure that the frame hub is positioned in the cable reel flange opening" after the cable reel has been inserted into the bag. *Brochure*. A POSITA would have readily understood that the side panel should be closed *after* *Brochure*'s reel as modified by *Blunt* is assembled (i.e., after placing the coil of cable on core 36" and placing flange 40") to support the reel between the frame hubs. Ex. 1002, ¶121. As discussed above, the "second support frame" secured to the side panel would be placed on the second flange of the reel when the side panel is closed. *Supra* § VIII.B.5. Thus, in *Brochure* as modified by *Blunt*, the step of placing the coil of cable on the elongated annular wall would occur before the step of placing flange

40" ("second flange") to hold the coil of cable on the elongated annular wall and before the step of placing the second flange on the second support frame. Ex. 1002, ¶121.

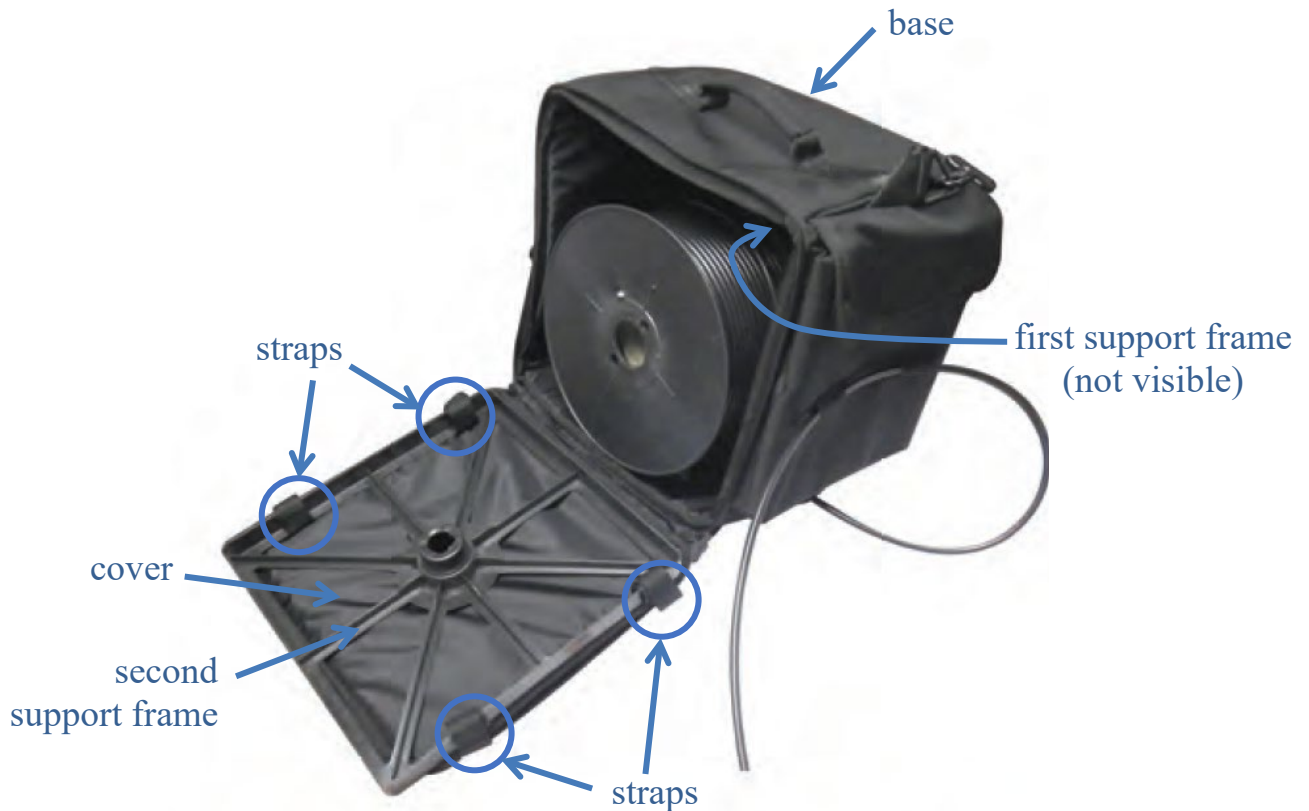
I. Claim 16: "The method of claim 10, wherein the step of placing at least a portion of the truncated annular wall within the receiving area of the elongated annular wall occurs after placing the coil of cable on the elongated annular wall."

Claim 16 depends from claim 10. *Brochure* in combination with *Blunt* renders obvious claim 15. *Id.* ¶¶122-123.

As discussed above, *Blunt* discloses placing stub component 52" ("truncated annular wall") of flange 40" ("second flange") within complementary receptacle 54 ("receiving area") of core 36" ("elongated annular wall") after placing the coil of cable on core 36" ("elongated annular wall"). *Supra* § VIII.H; *Blunt*, [0072]-[0073]; Ex. 1002, ¶123.

J. Claim 17: "The method of claim 9, further comprising the step of strapping the first support frame to the base of the bag and strapping the second support frame to the cover of the bag."

Brochure, alone or in combination with *Blunt*, discloses or renders obvious claim 17. Ex. 1002, ¶¶124-125.

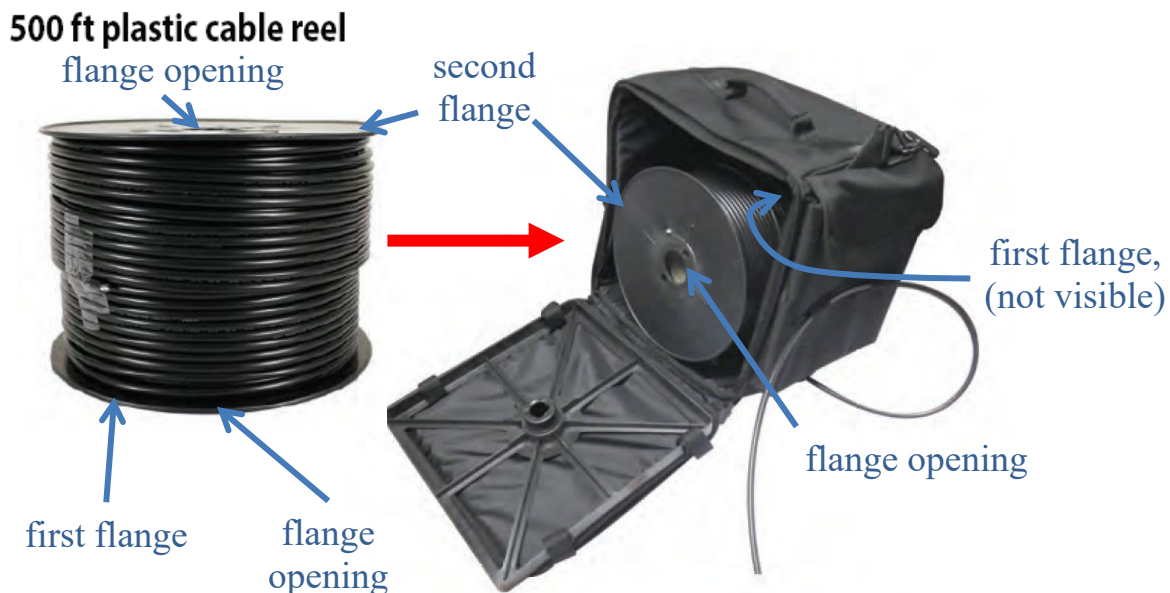


Brochure (annotated).

As discussed, and shown above, *Brochure* discloses a second support frame secured via straps (“strapped”) to the side panel (“cover”) of the *Tote* bag. *Supra* § VIII.B.3. *Brochure*, alone or in combination with *Blunt*, discloses or renders obvious a duplicate first support frame secured via straps (“strapped”) to the base side of the bag in the same manner as the second support frame is secured to the opposite cover side of the bag via straps. *Supra* § VIII.B.2.

K. Claim 18: “The method of claim 9, wherein each of the first and second flanges has a central arbor opening.”

Brochure, alone or in combination with *Blunt*, discloses or renders obvious claim 18. Ex. 1002, ¶¶126-129.

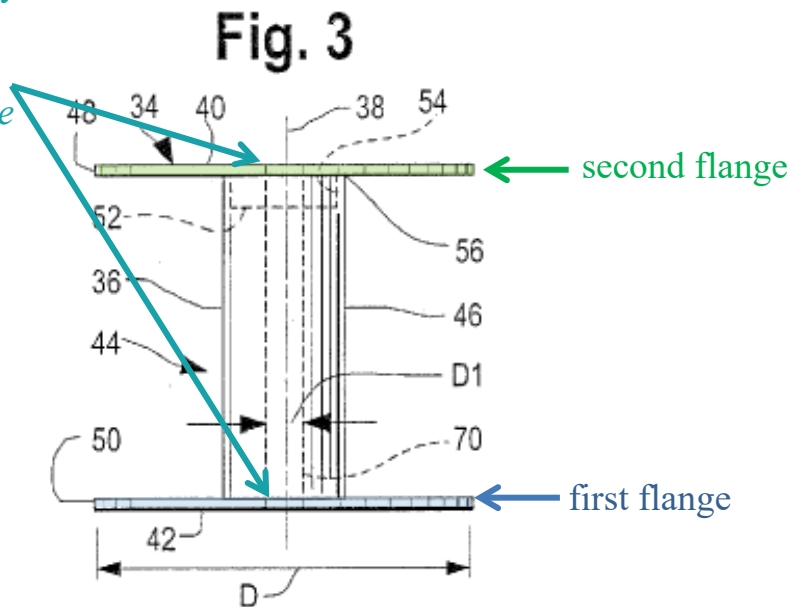


Brochure (annotated).

As shown above, *Brochure* discloses a cable reel that includes a first and second flange on both sides of the reel. Ex. 1002, ¶127. The flange on the side of the cable reel inserted into the bag is the “first flange” and the flange on the side of the cable reel facing the cover of the bag is the “second flange.” *Id.* Each of the flanges has a flange center hole or flange opening (“central arbor opening”) for fitting over a frame hub secured to the base and cover sides, respectively. *Id.*; *Brochure*; *supra* §§ VIII.B.2-VIII.B.5.

In addition, as discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (Ex. 1002, ¶128):

Central arbor opening
with a diameter slightly
greater than the
diameter of the frame
hub shown in *Brochure*



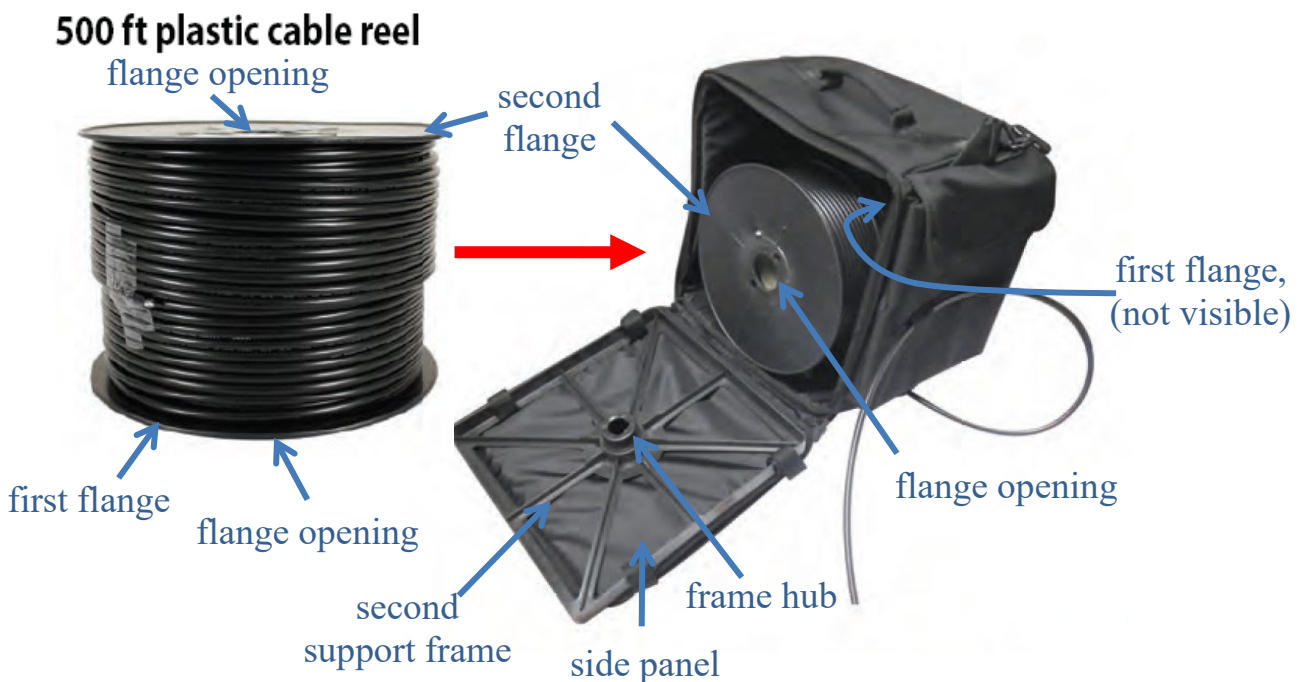
Supra § VIII.A; *Blunt*, FIG. 3 (annotated).

In this combination, a POSITA would understand that this reel structure would be inserted into the bag shown in *Brochure* above. Ex. 1002, ¶129. This reel structure includes a bore 70 ("central arbor opening") defined through the reel for receiving "shafts 114, 122 [of guide components 58", 60" are] directed oppositely into the bore 70." *Blunt*, [0097]. Thus, in *Brochure* as modified by *Blunt*, a POSITA would have understood that each of the first and second flanges has a central arbor opening. *Id.*; Ex. 1002, ¶129.

- L. Claim 19: “The method of claim 18, further comprising the step of fitting a middle [flange support] of each of the first and second support[] frames into the central arbor opening of the first and second flanges, respectively.”**

Brochure, alone or in combination with *Blunt*, discloses or renders obvious claim 19. Ex. 1002, ¶¶130-135.

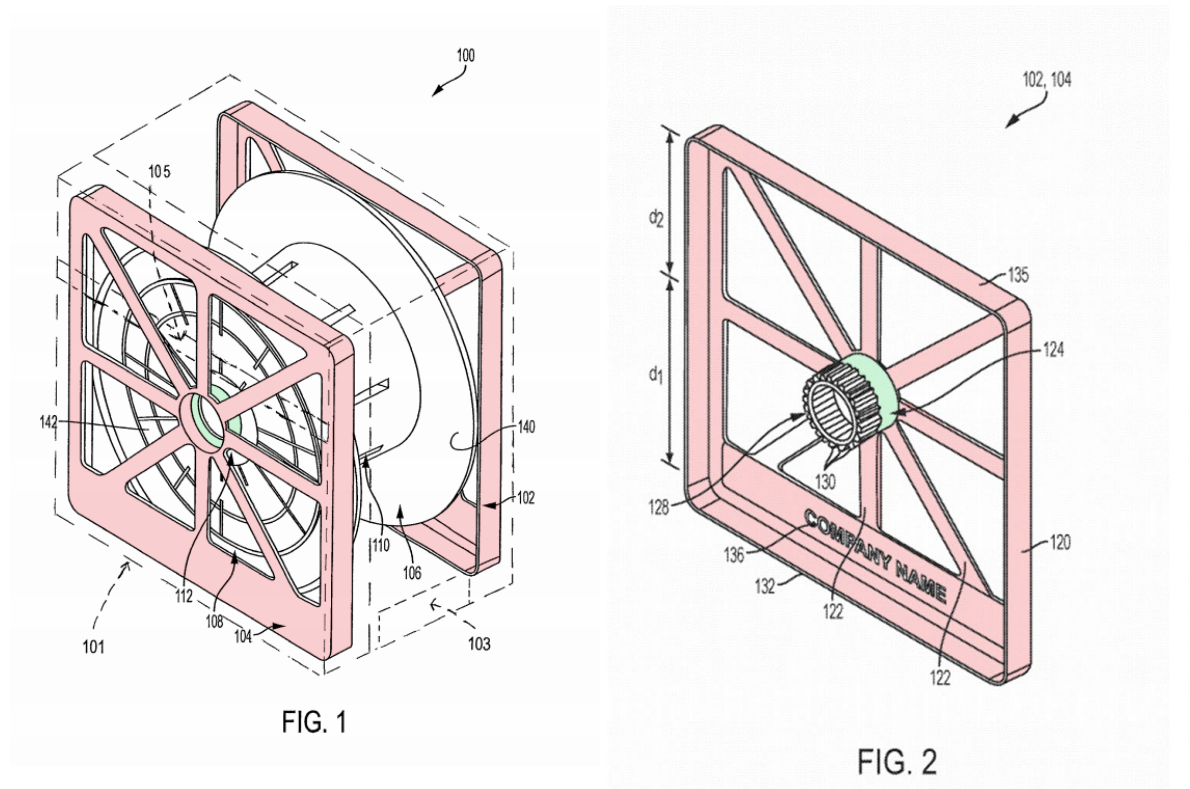
Brochure discloses fitting a frame hub (“middle flange support”) of each of the first and second support frames into the flange center hole or flange opening (“central arbor opening”) of the first and second flanges, respectively, as shown and discussed below. *Id.* ¶131; *Brochure*.



Brochure (annotated).

As discussed above, a POSITA would have readily recognized that *Brochure* teaches that when the “flange center hole [is] fit[] over the frame hub” as the cable

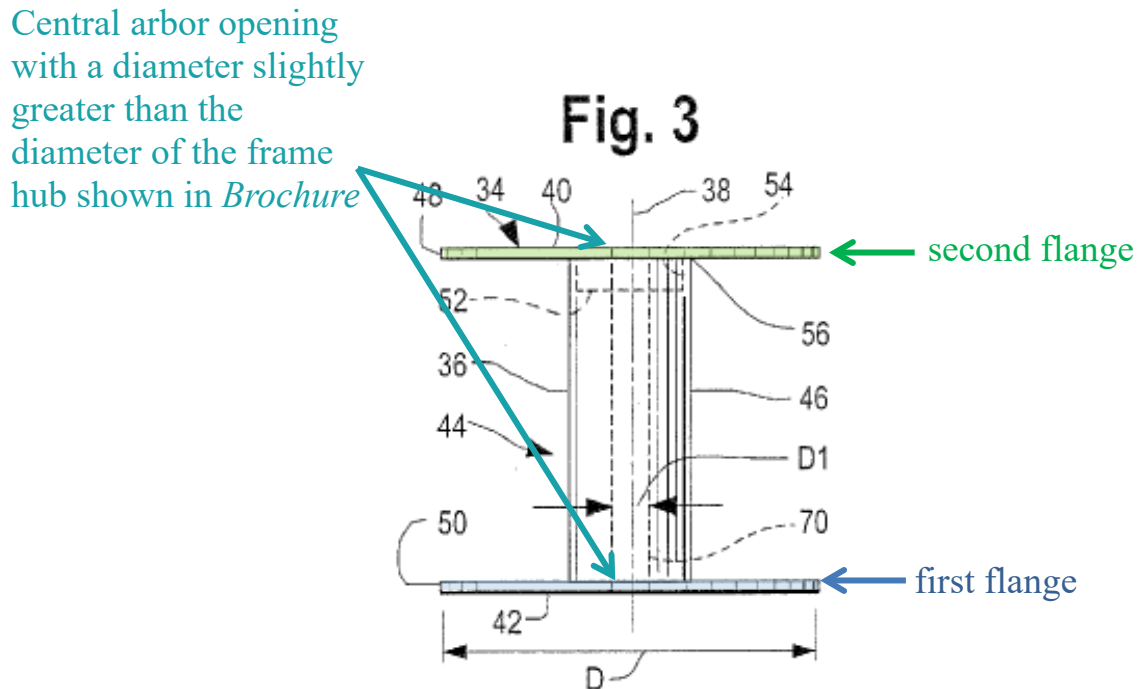
reel is inserted into the bag in Step 1, the frame hub (“middle flange support”) of the first support frame is fit into the flange center hole (“central arbor opening”) of the flange (“first flange”) in the same manner disclosed in the ’957 patent and shown below (*supra* § VIII.B.4; Ex. 1002, ¶132):



Ex. 1001, FIGS. 1-2 (annotated).

As also discussed above, *Brochure* discloses that when the side panel of the bag is closed, the frame hub (“middle flange support”) of the second support frame, which is attached to the side panel, fits into the flange opening (“central arbor opening”) of the second flange in the same manner as disclosed in the ’957 patent and shown above. *Brochure*; Ex. 1002, ¶133; Ex. 1001, 5:34-37; *supra* § VIII.B.5.

In addition, as discussed above, it would have been obvious to a POSITA to use the *Tote* bag with the reel structure shown below (Ex. 1002, ¶134):



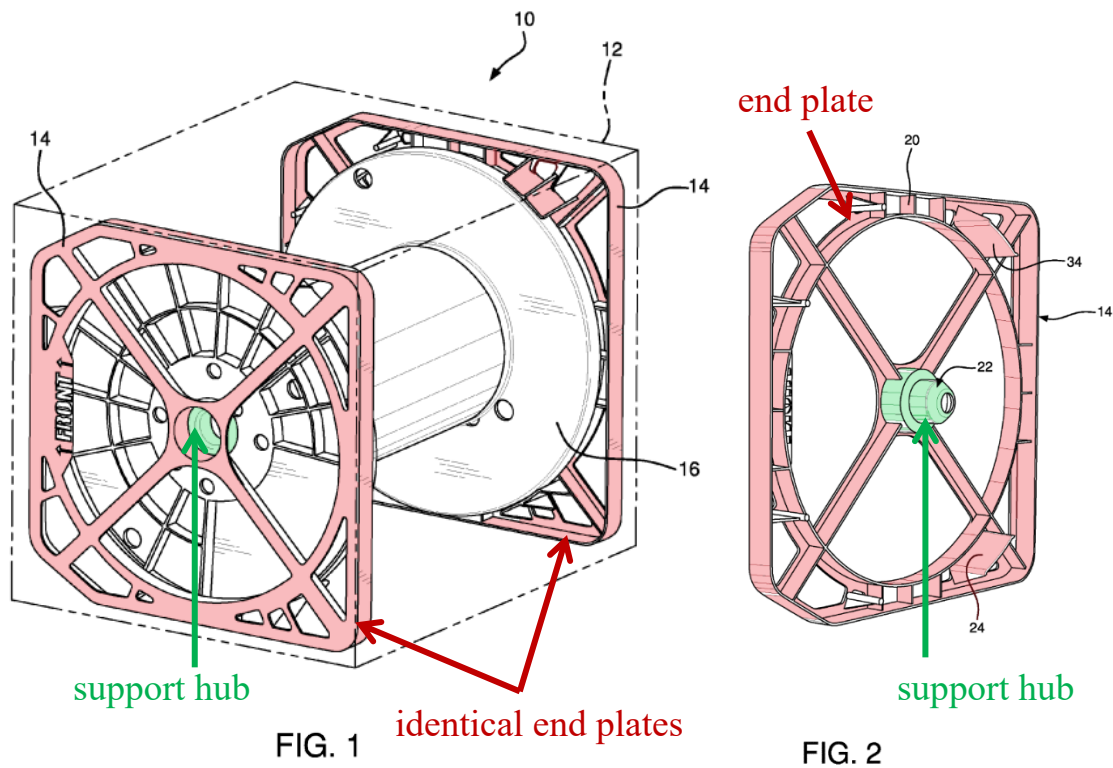
Supra § VIII.A; *Blunt*, FIG. 3 (annotated).

As discussed above, in this combination, this reel structure includes a bore 70" ("central arbor opening") defined through the reel for receiving shafts 114, 122 directed into the bore 70" from opposite ends. *Blunt*, [0097]; Ex. 1002, ¶135. A POSITA would have understood that this reel structure would be inserted into the bag shown in *Brochure* and that the frame hub ("middle flange support") of each of the support frames on the base and side panel of the *Tote* bag necessarily would be fit into bore 70" of reel 34" from opposite ends, respectively. Ex. 1002, ¶135.

IX. [Ground 2] The Challenged Claims Are Unpatentable over *Brochure* in View of *Blunt* and *Johanson*

As discussed above, the combination of *Brochure* and *Blunt* renders obvious each Challenged Claim. *Supra* § VIII. A POSITA would have understood that the *Tote* bag would have—and/or it would have been obvious to have—a duplicate support frame secured to the base of the bag (“first support frame”) on the opposite end of the “second support frame” (*supra* § VIII.B.2), and the “first support frame” of the Challenged Claims is also rendered obvious in view of *Johanson*. Ex. 1002, ¶136.

Johanson discloses a cable dispenser 10 including a box 12 and a pair of duplicate end plates 14 to support a spool 16 therebetween. *Johanson*, 2:55-65. As shown below, end plates 14 each include a support hub 22 positioned in the center of the plate and are positioned at opposite ends inside the box 12 with their respective support hubs 22 projecting inwardly on opposite sides of spool 16 to rotationally support spool 16. *Id.*, 2:60-3:10. *Johanson* teaches that the end plates 14 are preferably identical with their structures positioned in mirror images. *Id.*, 2:63-65.



Id., FIGS. 1-2 (annotated).

It would have been obvious for a POSITA to secure a support frame in the base (“first support frame”) of the *Tote* bag to provide duplicate support frames positioned at opposite ends of the bag in mirror images with their respective frame hubs rotationally supporting the reel of *Brochure* as modified with *Blunt*. Ex. 1002, ¶138; *Dunbar*, 94 U.S. at 195-200.

A POSITA would have been motivated to secure the duplicate support frame in the base to rotatably support the reel in a stable and balanced position for cable payout, to have a simple structure, and to save cost from having to manufacture only one part. Ex. 1002, ¶139; *supra* §§ VI, VIII.B.2. A POSITA would have expected

success in securing the duplicate frame in the base of the *Tote* bag because such modification would require only known and duplicative methods, such as using straps as for securing the second support frame to the cover of the bag. *Brochure*; Ex. 1002, ¶139.

X. The Board Should Not Deny Institution Under 35 U.S.C. § 325(d)

Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8, 17-18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph), sets forth the factors for considering if a denial under 35 U.S.C. § 325(d) is appropriate. Here, each factor overwhelmingly favors institution. For instance, *Blunt* and *Brochure* were not cited or otherwise relied upon by the Examiner during prosecution of the '957 patent. For at least this reason, the prior art at issue in this Petition is not cumulative, and the *Becton* factors favor institution.

XI. Mandatory Notices

A. Real Parties-in-Interest

The real parties-in-interest for this Petition are PPC Broadband, Inc. and Belden Inc., which wholly owns PPC Broadband, Inc.

B. Related Matter

To Petitioner's knowledge, the '957 patent is involved in the following:

Name	Number	Court	Filed
<i>Times Fiber Communications, Inc. v. PPC Broadband, Inc.</i>	1:21-cv-01823-UNA	D. Del.	December 27, 2021

C. Lead and Back-Up Counsel

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D. Service Information

Please address correspondence to counsel at the addresses above and PPC-Broadband-IPR@finnegan.com. Petitioner consents to service by e-mail.

XII. Standing

The '957 patent is eligible for *inter partes* review and Petitioner is not barred or estopped from requesting review.

XIII. Conclusion

Petitioner has established a reasonable likelihood of success and requests that the Board institute review and cancel the Challenged Claims.

Dated: April 21, 2022

Respectfully submitted,

/Cory Bell/

Cory Bell

Reg. No. 75,096

Lead Counsel

CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

Pursuant to 37 C.F.R. § 42.24(a)(1)(i), the undersigned hereby certifies that the foregoing **Petition for *Inter Partes* Review** contains 13,694 words, excluding the parts of this Petition that are exempted under 37 C.F.R. § 42.24(a), as measured by the word-processing system used to prepare this paper.

/Cory Bell/

Lead Counsel

Reg. No. 75,096

CERTIFICATE OF SERVICE

The undersigned certifies that, in accordance with 37 C.F.R. § 42.6(e) and 37 C.F.R. § 42.105(a), **Petition for *Inter Partes* Review, Petitioner's Power of Attorney and Designation of Lead and Back-up Counsel, Petitioner's Exhibit List, and the associated Exhibits 1001-1016; 1018-1043** were served via FedEx on April 21, 2022, on the correspondence address of record below indicated in the Patent Office's public PAIR system for U.S. Patent No. 10,589,957 B2.

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Dated: April 21, 2022

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