

<p><b>This Opinion is a Precedent of the TTAB</b></p>
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Mailed: September 29, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

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Trademark Trial and Appeal Board

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*In re Heatcon, Inc.*

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Serial No. 85281360

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John M. Janeway of Janeway Patent Law PLLC for Heatcon, Inc.

Tracy Cross, Trademark Examining Attorney, Law Office 109,  
Dan Vavonese, Managing Attorney.

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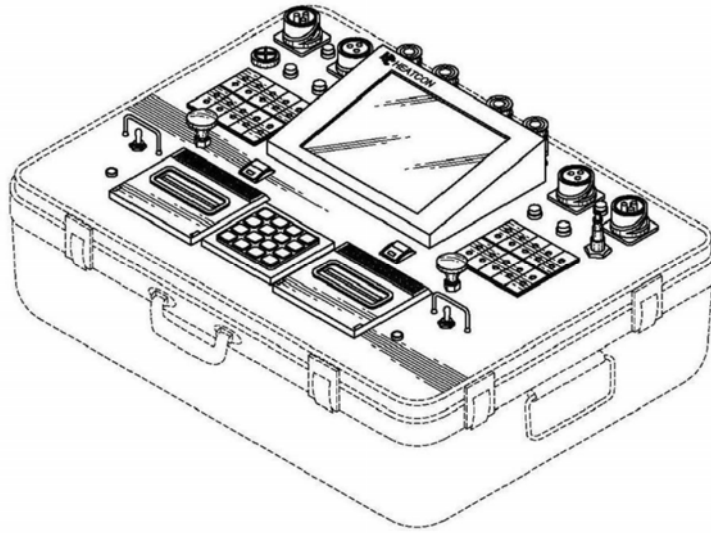
Before Kuhlke, Taylor and Shaw  
Administrative Trademark Judges.

Opinion by Kuhlke, Administrative Trademark Judge:

Heatcon, Inc. (Applicant) seeks registration on the Supplemental Register of the product configuration shown below for, as amended, “Equipment for controlling and recording the application of heat and pressure in a process for fabricating bonded composite materials, namely, woven glass, aramid fibers and carbon fabric, and adhesives bonds to composite or metallic components,” in International Class 9.<sup>1</sup>

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<sup>1</sup> Application Serial No. 85281360 filed on March 30, 2011, based upon Applicant’s allegation of first use and first use in commerce on November 1, 2010 under Section 1(a) of the Trademark Act, 15 U.S.C. § 1051(a).



The mark is described as follows:

The mark consists of a three dimensional configuration of the arrangement of the HCS9200M Composite Repair Set's (Hot Bonder's) user interface components featuring a display panel located in the middle of the top half of the interface, a vacuum out port above the upper left corner of the display panel, another vacuum out port above the upper right corner of the display panel, a vacuum monitor port right of the vacuum out port above the left corner of the display panel, another vacuum monitor port left of the vacuum out port above the right corner of the display panel, an output power receptacle left of the vacuum out port above the upper left corner of the display panel, another output power receptacle right of the vacuum out port above the upper right corner of the display panel, an input power receptacle left of the output power receptacle left of the display panel, another input power receptacle right of the output power receptacle right of the display panel, an output power LED indicator left of the display panel between the output and input power receptacles, another output power LED indicator right of the display panel between the output and input power receptacles, an alarm below the input power receptacle left of the display panel, an air input port below the input power receptacle right of the display panel, a ground-fault interrupter (GFI) LED indicator right of the alarm, another ground-fault interrupter (GFI) LED indicator left of the air input port, a GFI reset switch right of the GFI LED indicator

and left of the display panel, another GFI reset switch left of the GFI LED indicator and right of the display panel, a set of ten thermocouple jacks left of the display panel, another set of ten thermocouple jacks right of the display panel, a vacuum control regulator below the set of ten thermocouple jacks left of the display panel, another vacuum control regulator below the other set of ten thermocouple jacks right of the display panel, a power switch below the left corner of the display panel, another a power switch below the right corner of the display panel, a keypad below the display panel, a printer exit left of the keypad, another printer exit right of the keypad, a printer paper feed pushbutton switch left of the printer exit left of the keypad, another printer paper feed pushbutton switch right of the printer exit right of the keypad, and the face plate that these components are located on. The broken lines depicting the case, handle and latches indicate placement of the mark on the goods and are not part of the mark.

Color is not claimed as a feature of the mark.

### **Prosecution History**

Applicant filed the application seeking registration on the Principal Register. The Examining Attorney initially refused registration under Section 2(e)(5), 15 U.S.C. § 1052(e)(5), on the ground that the proposed mark is functional, and Sections 1, 2 and 45 of the Trademark Act, 15 U.S.C. §§ 1051-52 and 1127, on the ground that the proposed mark is a nondistinctive product design and is not registrable on the Principal Register without proof of acquired distinctiveness. The Examining Attorney also, *inter alia*, requested an amended description of the mark and an amended drawing. Applicant submitted an amendment of its application to seek registration on the Supplemental Register, argued against the Section 2(e)(5) functionality refusal and submitted an amended description of the mark and an amended drawing, substituting for its original color drawing a black and white

drawing wherein the case and handle are depicted in dotted lines. Notably, Applicant did not: (1) seek amendment to the Supplemental Register “in the alternative”; or (2) argue against the refusal under Sections 1, 2 and 45, which are pertinent to possible registration on the Principal Register. The Examining Attorney noted the amendment to the Supplemental Register was unacceptable “pending submission of an acceptable drawing,” explaining that functional elements of the equipment were not displayed in dotted lines.<sup>2</sup> Applicant responded that the proposed mark it “would like to register on the United States Patent and Trademark Office’s Supplemental Register” is not functional and its initial amended drawing is sufficient. The Examining Attorney issued a final Office action based on the refusals under Section 2(e)(5), Sections 1, 2 and 45, the insufficiency of the Section 2(f) claim, and the requirement for an amended drawing. After Applicant filed its notice of appeal, the Examining Attorney requested remand to address Applicant’s amendment to the Supplemental Register in order “to maintain consistent action with the applicant’s prior pending Application Serial Nos. 85/281225, 85/281264, 85/281291, 85/281317, 85/281225 [sic] and 85/281386” and noting that “[t]he Section 2(e)(5) refusal is now moot since the applicant has amended to the Supplemental Register, and the functional refusal will now be issued pursuant to Section 23.”<sup>3</sup> The Board granted this request for remand. 10

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<sup>2</sup> February 10, 2012 Office Action, TSDR p. 1. Citations to TSDR refer to the USPTO’s Trademark Status and Document Retrieval electronic file database.

<sup>3</sup> Remand Request August 1, 2013, TSDR p. 1.

TTABVUE 1.<sup>4</sup> The Examining Attorney then issued a non-final Office action. In light of Applicant's amendment to the Supplemental Register, she withdrew the refusal under Sections 1, 2 and 45, which only pertain to applications seeking registration on the Principal Register.<sup>5</sup> Instead, she issued the functionality refusal under Trademark Act Section 23(c), 15 U.S.C. § 1091(c), which governs the Supplemental Register and specifically prohibits registration of matter that is functional.

In response, Applicant continued to assert that its proposed mark is not functional and noted that "[m]oving the mark to the Supplemental Register would make moot the Examiner's refusal to register the mark on the Principal Register."<sup>6</sup> The Examining Attorney thereupon withdrew the refusal based upon the insufficiency of the Section 2(f) claim, and made final the refusal under Section 2(e)(5) and the drawing requirement. Citing to Sections 2(e)(5) and 23(c), she explained "that functional matter may not be registered on either the Principal or Supplemental Registers, regardless of evidence of acquired distinctiveness."<sup>7</sup>

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<sup>4</sup> Citations to TTABVUE refer to the Board's electronic case file database, by entry and page number.

<sup>5</sup> At the end of the November 16, 2013 Office action the Examining Attorney noted that the "Section 2(f) claim insufficiency and drawing requirement of the previous office actions are continued." November 16, 2013 Office action, TSDR p. 1. However, given the amendment to the Supplemental Register and the withdrawal of the refusal under Sections 1, 2 and 45, the refusal based on the requirement pertaining to any deficiencies for a potential Section 2(f) claim was moot at that point.

<sup>6</sup> May 19, 2014 Response, TSDR at 1.

<sup>7</sup> July 22, 2014 Office action, TSDR p. 1.

### Issues on Appeal

As noted above, the Trademark Examining Attorney has refused registration of Applicant's mark on the ground that it is functional, citing Sections 2(e)(5) and 23(c) of the Trademark Act, 15 U.S.C. §§ 1052(e)(5) and 1091(c). In addition, the Examining Attorney has refused registration based on the requirement to submit an amended drawing depicting all functional features of the interface in dotted lines.<sup>8</sup>

The Examining Attorney and Applicant filed briefs. We affirm the refusals to register.

### Functionality

Under the statute, functional matter is unregistrable on the Principal and Supplemental Registers. 15 U.S.C. § 1052(e)(5) ("No trademark by which the goods of the applicant may be distinguished from the goods of others shall be refused registration on the *principal register* on account of its nature unless it ... (e) Consists of a mark which ... (5) comprises any matter that, as a whole, is functional") and 15 U.S.C. § 1091(c) ("For the purposes of registration on the *supplemental register*, a mark may consist of any ... configuration of goods ... that as a whole is not functional ... but such mark must be capable of distinguishing the applicant's goods or services") (emphasis added).

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<sup>8</sup> If the entirety of Applicant's claim for the mark, including the arrangement, is functional, then the drawing refusal would be moot. The drawing requirement is relevant only to the extent that the description of the mark claims the arrangement of the user interface components that are individually functional, and the arrangement of those functional components is found to be not functional, *i.e.*, more than the sum of its parts.

While the refusals continue to reference Section 2(e)(5), once Applicant amended the application to seek registration on the Supplemental Register, without making the amendment “in the alternative” to a continuing request for registration on the Principal Register, the statutory authority for refusal is Section 23(c) in Title II of the Trademark Act, which governs the Supplemental Register. Section 2(e)(5) does not apply to the Supplemental Register. See Trademark Act §§ 23(a) and 26. Instead, the registrability of functional matter on the Supplemental Register is prohibited by Section 23(c). *Cf.* TMEP §1209.02(a)(i) (July 2015) (if an applicant responds to a mere descriptiveness/genericness refusal by amending to the Supplemental Register the statutory basis for such a refusal is § 23 of the Trademark Act).

We further note a new nonfinal action generally would not be necessary where the final Office action acknowledges the amendment to the Supplemental Register and recites Section 23(c), inasmuch as Section 2(e)(5) already relates to functional matter, and the two provisions are, to that extent, identical. *See* TMEP § 714.05(a)(i) (“...if registration is refused under ... § 2(e)(5), an amendment to the Supplemental Register ... does *not* raise a new issue and does not preclude the examining attorney from issuing a final refusal.” emphasis in original); and § 1202.02(a)(iii)(A) (“if an applicant responds to a functionality refusal under §2(e)(5) ... by submitting an amendment seeking registration on the Supplemental Register, such an amendment does not introduce a new issue warranting a nonfinal Office action). In this case, however, for the sake of clarity, it was appropriate to remand

and issue an action clearly making the refusal under Section 23, as that is the statutory authority governing the Supplemental Register, and the amendment to the Supplemental Register was not addressed in the previous final Office action. To be clear, when Applicant filed its amendment to the Supplemental Register and did not preserve in the alternative that its asserted mark has acquired distinctiveness under Section 2(f), the Examining Attorney could have withdrawn the Sections 1, 2 and 45 refusal and the requirement for evidence of acquired distinctiveness and simply issued a final Office action based on the functionality of the proposed mark under Section 23(c).<sup>9</sup>

While the application before us now seeks registration on the Supplemental Register and the statutory authority for refusal is Section 23, the case law applying Section 2(e)(5) and addressing functionality refusals prior to the 1998 amendments to the Trademark Act, which added Section 2(e)(5) and amended Section 23(c), remains equally applicable because the issue, functionality, is the same.<sup>10</sup> *See In re Minnesota Mining and Mfg. Co.*, 335 F.2d 836, 142 USPQ 366, 368 (CCPA 1964), (citing, *In re Deister Concentrator Co.*, 289 F.2d 496, 129 USPQ 314 (CCPA 1961)).

Matter is functional if “it is essential to the use or purpose of the article or if it affects the cost or quality of the article.” *TrafFix Devices Inc. v. Marketing Displays*

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<sup>9</sup> Presumably in this case because the Examining Attorney did not accept the amendment to the Supplemental Register based on a drawing requirement, the application technically remained on the Principal Register and the Examining Attorney continued the other refusals. As a better practice, the Examining Attorney should have allowed the amendment to the Supplemental Register to overcome the nondistinctiveness refusal, but maintained the drawing requirement and the functionality refusal to register, even on the Supplemental Register.

<sup>10</sup> We note that citation of an obviously incorrect statutory basis is not fatal to a refusal.



*Inc.*, 532 U.S. 23, 58 USPQ2d 1001, 1006 (2001) (citation omitted). “To support a functionality rejection in proceedings before the Board, the PTO examining attorney must make a *prima facie* case of functionality, which if established must be rebutted by ‘competent evidence.’” *In re Becton, Dickinson and Co.*, 675 F.3d 1368, 102 USPQ2d 1372, 1376 (Fed. Cir. 2012) (quoting *In re Teledyne Indus.*, 696 F.2d 968, 217 USPQ 9, 11 (Fed. Cir. 1982)). In making our determination of functionality we apply the test first set forth in *In re Morton Norwich Products, Inc.*, 740 F.2d 1550, 213 USPQ 9 (CCPA 1982). *See Becton, Dickinson and Co.*, 102 USPQ2d at 1377, (citing *Morton-Norwich*, 213 USPQ at 15-16). These factors are not exclusive, however, for functionality “depends upon the totality of the evidence.” *Valu Engineering Inc. v. Rexnord Corp.*, 278 F.3d 1268, 61 USPQ2d 1422, 1424 (Fed. Cir. 2002). *Morton-Norwich* identifies the following factors to be considered in determining whether a particular design is functional: (1) the existence of a utility patent disclosing the utilitarian advantages of the design; (2) advertising materials in which the originator of the design touts the design’s utilitarian advantages; (3) the availability to competitors of functionally equivalent designs; and (4) facts indicating that the design results in a comparatively simple or cheap method of manufacturing the product. *Morton-Norwich*, 213 USPQ at 15-16. It is not required that all four factors be proven in every case, nor do all four factors have to weigh in favor of functionality to support a refusal. Nevertheless, in reaching our decision, we will review all four factors. *See AS Holdings, Inc. v. H & C Milcor, Inc.*, 107 USPQ2d 1829, 1833 (TTAB 2013).

Before applying these factors to the facts of this case, we first must define what Applicant intends to claim as a trademark. In view of the dispute regarding the absence of dotted lines in the drawing, the drawing could be interpreted to claim as a mark the shape of each of the functional features as well as their placement on the device. We will address the drawing requirement *infra*; however, for purposes of the functionality analysis we follow the description of the mark and Applicant's representation in its brief that it only claims the arrangement or placement of each of the specific functional features of the user interface but not the individual functional features *per se*.<sup>11</sup>

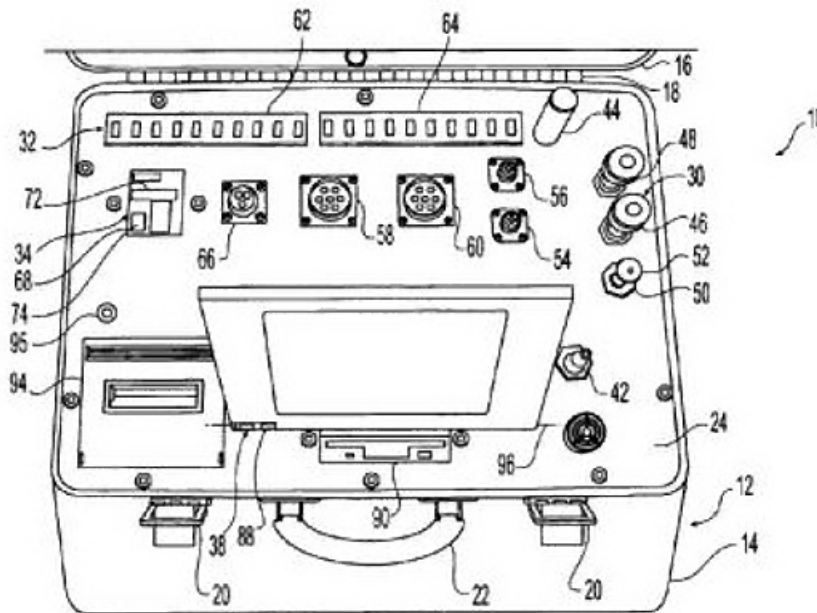
#### Utility Patent

With regard to the first factor, the existence of a utility patent “is strong evidence that the features claimed therein are functional” and “[w]here the expired patent claimed the features in question, one who seeks to establish trade dress protection must carry the heavy burden of showing that the feature is not functional, for instance by showing that it is merely an ornamental, incidental, or arbitrary aspect of the device.” *TrafFix*, 58 USPQ2d at 1005. In addition, third-party utility patents may be relied upon as evidence; ownership of the utility patent is not relevant. *In re Pohl-Boskamp GmbH & Co.*, 106 USPQ2d 1042, 1046 n. 22 (TTAB 2013); *In re Mars Inc.*, 105 USPQ2d 1859, 1861 (TTAB 2013); *In re Virshup*, 42 USPQ2d 1402, 1405 (TTAB 1997).

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<sup>11</sup> Supp. Br., 13 TTABVUE 19-20.

The Examining Attorney relies on United States Patent No. 6976519 ('519), owned by a third party, for a “Portable Curing System for Use with Vacuum Bag Repairs and the Like” as shown in the drawing below.<sup>12</sup>



The Examining Attorney observes that the claims include “a carrying case, a controller with a microprocessor, a vacuum pump, at least one heater connector for receiving a lead of a thermocouple, and a touch screen display to view information and input information to the controller.” It also has power ports along the top with a printer beside a central display screen. Ex. Att. Br., 15 TTABVUE 9. Further, the Examining Attorney points out that the patented device and Applicant’s device both place “the display screen and printer opposite the power input port and vacuum connector ports [so that] [t]he operator can connect cords, cables and/or wires away

<sup>12</sup> September 20, 2012 Office action, TSDR pp. 99-111. The Examining Attorney also references another third-party patent for an “In Situ Pipe Repair Controller and System” that arranges the ports around the upper periphery of the instrument panel for easy and unencumbered connection of cables and hoses. However, we focus our attention on the more relevant patent.

from the user and avoid entangling the connections or hindering access to the other sensors, buttons and components of the panel.” Ex. Att. Br., 15 TTABVUE 10.

Applicant argues patent ’519 has no probative value as to whether or not the specific arrangement as a whole is functional because the claims do not reference how the components are arranged and figures 1 and 2 simply show “one possible arrangement of a virtually infinite number of possible arrangements.” Supp. Br., 13 TTABVUE 15. However, as noted by the Examining Attorney, the utility patent need not “claim the exact configuration for which trademark protection is sought in order to undermine an applicant’s assertion that an applied-for mark is not de jure functional.”<sup>13</sup> *Becton, Dickinson and Co.*, 102 USPQ2d at 1377. Rather “a patent’s

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<sup>13</sup> In general, the USPTO employs the terms “functional” and “nondistinctive,” and has retired the terms “de jure” and “de facto.” As explained in the TMEP:

Prior to 2002, the USPTO used the terms “*de facto*” and “*de jure*” in assessing whether “subject matter” (usually a product feature or the configuration of the goods) presented for registration was functional. This distinction originated with the Court of Customs and Patent Appeals’ decision in *In re Morton-Norwich Prods., Inc.*, 671 F.2d 1332, 213 USPQ 9 (C.C.P.A. 1982), which was discussed by the Federal Circuit in *Valu Eng’g, Inc. v. Rexnord Corp.*, 278 F.3d 1268, 1274, 61 USPQ2d 1422, 1425 (Fed. Cir. 2002).

Our decisions distinguish *de facto* functional features, which may be entitled to trademark protection, from *de jure* functional features, which are not. ‘In essence, *de facto* functional means that the design of a product has a function, i.e., a bottle of any design holds fluid.’ *In re R.M. Smith, Inc.*, 734 F.2d 1482, 1484, 222 USPQ 1, 3 (Fed. Cir. 1984). *De facto* functionality does not necessarily defeat registrability. *Morton-Norwich*, 671 F.2d at 1337, 213 USPQ at 13 (A design that is *de facto* functional, i.e., ‘functional’ in the lay sense ... may be legally recognized as an indication of source.’). *De jure* functionality means that the product has a particular shape ‘because it works better in this shape.’ *Smith*, 734 F.2d at 1484, 222 USPQ at 3.

specification illuminating the purpose served by a design may constitute equally strong evidence of functionality.” *Id.*

Claim 20 of patent ’519 is set forth below:

A portable curing system comprising, in combination: a carrying case; a controller located within the carrying case and having a microprocessor; a vacuum pump located within the case and having at least two vacuum ports for connection of vacuum lines; at least two vacuum sensor connectors located within the carrying case for receiving leads of vacuum sensors; at least two heater connectors located within the carrying case for receiving leads of electrical heaters; at least two temperature sensor connectors located within the carrying case for receiving leads of thermocouples; wherein the controller is operably connected to the vacuum pump, the vacuum sensor connectors, the heater connectors, and the temperature sensor connectors; a touch-screen video display mounted within the carrying case and operably connected to the controller to display information from the controller and input information to the controller; and wherein the video

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However, in three Supreme Court decisions involving functionality – *TrafFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 58 USPQ2d 1001 (2001), *Wal-Mart Stores, Inc. v. Samara Bros.*, 529 U.S. 205, 54 USPQ2d 1065 (2000), and *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159, 34 USPQ2d 1161 (1995) – the Court did not use the “*de facto/de jure*” distinction. Nor were these terms used when the Trademark Act was amended to expressly prohibit registration of matter that is “functional.” Technical Corrections to Trademark Act of 1946, Pub. L. No. 105-330, §201, 112 Stat. 3064, 3069 (1998). Accordingly, in general, examining attorneys no longer make this distinction in Office actions that refuse registration based on functionality.

*De facto* functionality is not a ground for refusal. *In re Ennco Display Sys. Inc.*, 56 USPQ2d 1279, 1282 (TTAB 2000); *In re Parkway Mach. Corp.*, 52 USPQ2d 1628, 1631 n.4 (TTAB 1999).

TMEP § 1202.02(a)(iii)(A).

display is pivotable between a stowed position and a viewing position.<sup>14</sup>

The patent claim includes the boundaries of any arrangement, *i.e.*, portable carrying case, and specifically claims the ability of the touchscreen video to be in a raised position. The patent further discloses the “preferred embodiments” that include “for example, specific dimensions, orientations, and shapes of the portable curing system components” which “will be determined in part by the particular intended application and use environment.” In addition, the patent discloses (emphasis added) that:

The illustrated vacuum pump 40 is secured to the upper panel 24 below the upper panel 24 and at the right side of the carrying case 12 (as viewed in Fig. 1). The air supply port 42 is connected to an air inlet of the vacuum pump 40 and is adapted for receiving an air input line to connect a source of compressed air to the vacuum pump 40. The illustrated air supply port 42 extends through the upper panel 24 so that an inlet end of the port 42 is located above the upper panel 24 and an outlet end of the port 42 is located below the upper panel 24 at a front end of the vacuum pump 40. **Mounted in this manner, the air input line can be easily connected to the port 42 when the lid 16 of the carrying case 12 is in its open position.** The air exhaust port 44 is connected to an outlet of the vacuum pump 40 for exhausting fluids from the vacuum pump 40. The illustrated air exhaust port 44 extends through the upper panel 24 so that an outlet end of the port 44 is located above the upper panel 24 and an inlet end of the port 44 is located below the upper panel 24 at a rear end of the vacuum pump 40. **Mounted in this manner, air or other fluid can be easily discharged to the surrounding environment when the lid 16 of the carrying case 12 is in its open position.** ... The illustrated control valve 50 is provided with an adjustment knob 52 so that the operator can

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<sup>14</sup> September 20, 2012 Office action, TSDR p. 106.

manually adjust the level of vacuum provided through the vacuum lines by the vacuum pump 40. The illustrated control valve 50 extends through the upper panel 24 so that the adjustment knob 52 is located above the upper panel 24 and the valve portion located below the upper panel 24 at a right side of the vacuum pump 40 in the line between the vacuum pump 40 and the vacuum ports 46, 48. **Mounted in this manner, the adjustment knob 52 can be easily adjusted when the lid 16 of the carrying case 12 is in its open position.** It is noted that the adjustment knob 52 can alternatively be any other suitable operator control device. ... Below the upper panel 24, the outlet ends of the connectors 54, 56 are suitably connected to the controller 36 as described in more detail hereinafter. **Mounted in this manner, the vacuum sensor lines can be easily plugged into the connectors 54, 56 when the lid 16 of the carrying case 12 is in its open position.** ... **Mounted in this manner, the heater leads can be easily plugged into the connectors 58, 60 when the lid 16 of the carrying case 12 is in its open position.**<sup>15</sup>

These references to the placement of various functional features in relation to each other and within the confines of the portable carrying case clearly indicate the utilitarian advantages of how the features are arranged. The importance and benefit of the arrangement of the various functional features which enables the device to operate optimally without, for example, cable entanglement, is illustrated by the picture below showing another of Applicant's devices when hooked up for operation.

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<sup>15</sup> *Id.*, TSDR p. 108-109.



We find the '519 patent discloses the utilitarian advantages of the arrangement of the various parts, *e.g.*, vacuum ports and pumps, power ports, printers and monitor, of an interface for a portable hot bonder. Given the strong weight to be accorded patent evidence under *TrafFix*, we find that the patent is sufficient to establish *prima facie* that the design is functional.

### Advertising

Under this factor, we consider evidence regarding “advertising materials in which the originator of the design touts the design’s utilitarian advantages.” *Valu Engineering v. Rexnord*, 61 USPQ2d at 1426 citing *Morton-Norwich*, 213 USPQ at 15-16. The Examining Attorney argues that Applicant’s own advertising extols specific utilitarian advantages of the applied-for configuration. For example, Applicant’s brochure lists the following as “standard features”:

All aluminum, scratch resistant, anodized faceplate

Ergonomic design, convenient hookup of all accessories

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<sup>16</sup> July 22, 2014 Office action, TSDR p. 56.



Circuit breakers are on front panel, no fuses to replace<sup>17</sup> and further “touts” its ease of use, compact size, and portability with “a built-in vacuum system to allow easier mobility to the repair site.”<sup>18</sup>

The Examining Attorney observes that the “‘ergonomic design’ reference is immediately followed by ‘convenient hookup of all accessories’. The connections for the accessories are arranged on the face of the interface panel in a manner that makes hooking up the accessories convenient.” Ex. Att. Br., 15 TTABVUE 12.

We find that the references to “ergonomic design,” “convenient hook up” and “circuit breakers on the front panel” directly address Applicant’s claim, namely the arrangement of the features on the faceplate, and as such are probative on this point. Ergonomic is defined as “2. Designed to minimize physical effort and discomfort, and hence maximize efficiency.”<sup>19</sup> In addition to the convenient hook up, the ergonomic design allows for dual zone applications, by allowing the user to operate in the center entering data and monitoring from the center screen and receiving results from printers on either side.

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<sup>17</sup> January 6, 2012 Response, TSDR p. 11.

<sup>18</sup> *Id.*, TSDR p. 12.

<sup>19</sup> COLLINS ENGLISH DICTIONARY ([www.collinsdictionary.com](http://www.collinsdictionary.com)), July 22, 2014, TSDR pp. 87-88. We note this definition which the Examining Attorney made of record is not from the COLLINS AMERICAN ENGLISH DICTIONARY but approximates the definition in the MERRIAM-WEBSTER online dictionary ([www.merriam-webster.com/dictionary/ergonomic](http://www.merriam-webster.com/dictionary/ergonomic)); “1. An applied science concerned with designing and arranging things people use so that the people and things interact most efficiently and safely – called also biotechnology, human engineering, human factors 2. The design characteristics of an object resulting especially from the application of the science of ergonomics.” The Board may take judicial notice of dictionary definitions. *In re Red Bull GmbH*, 78 USPQ2d 1375, 1378 (TTAB 2006). *See also University of Notre Dame du Lac v. J.C. Gourmet Food Imports Co.*, 213 USPQ 594, 596 (TTAB 1982), *aff’d*, 703 F.2d 1372, 217 USPQ 505 (Fed. Cir. 1983).

Applicant's other models that do not have the dual zone option do not have the screen in the middle. See below:



The Examining Attorney also points to third-party references to Applicant's configuration, touting the display "that lets mechanics monitor the cure cycle for composites used in repairs, which is important for assuring that the resulting component meets airworthiness requirements. Speed, rapid response and visually assuring that cure cycles parameters are being followed are absolutely essential in this whole process."<sup>21</sup>

The Examining Attorney also relies on competitors' advertising and promotional materials. *In re Van Valkenburgh*, 97 USPQ2d 1757, 1763 (TTAB 2011). For example, third-party WichiTech Industries "promotes the ease of operation and safety of its product ... [which] features an input pad centered between the dual

<sup>20</sup> January 6, 2012, Response, TSDR p. 9 (product comparison guide showing HCS9000B and HCS9000FL models as having 1 zone and HCS9200B, HCS9200FL, HCS9200M-04 (configuration of the subject application) and HCS9200N models as having 2 zones); p. 10, 11, 20 (pictures showing 1 zone models HCS9000B and HCS9000FL with the monitor on the side and 2 zone models HCS9200B, HCS9200FL and HCS9200M with the monitor in the middle); August 10, 2012 Response, TSDR p. 6 (showing 2 zone model HCS9200N with monitor in the middle).

<sup>21</sup> September 20, 2012 Office action, TSDR p. 119.

zones to be able to operate each zone without the addition of a pad for each zone [and] [t]he user can control and reach other valves and connectors from the center with minimal movement, and the compact size of the overall unit is maintained. ... The interface products of both parties have dual zones with components mirrored on the left and right. For both products, the power and vacuum connector ports are along the top of the unit, with thermocouple jacks grouped together along each side. The keypads are located in the center.” Ex. Att. Br., 15 TTABVUE 12-13.<sup>22</sup> In the promotional materials, WichiTech Industries touts:

These twin features permit you to perform two independently-programmed cures simultaneously. Fail-safe protection is provided by the monitoring of multiple thermocouples, and audible alarms guard against temperature and vacuum conditions that could ruin the repair.<sup>23</sup>

Similarly, another competitor, Zimac Laboratories, touts that its dual zone hot bonder can “Increase your productivity.”<sup>24</sup> As noted by the Examining Attorney, this hot bonder also has the power ports along the top and the thermocouple ports arranged along each side.

A competitor, BriskHeat, touts its product as “easier • better” with an “easy-to-use full-color HD Touch-Screen” and a “Fast Dual Vacuum System.”<sup>25</sup> Again, this product has a centered display with printers on each side and power ports at the top.

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<sup>22</sup> See July 22, 2014 Office action, TSDR pp. 53-54.

<sup>23</sup> January 6, 2012 Response, TSDR p. 19.

<sup>24</sup> July 7, 2011 Office action, TSDR p. 25.

<sup>25</sup> February 10, 2012 Office action, TSDR pp. 5-6.

Accordingly, we conclude that the advertising evidence supports a finding that Applicant's mark is functional.

### Alternative Designs

Applicant submitted the following third-party products as examples of alternative designs.



<sup>26</sup>

WichTech Industries, Inc.

<sup>27</sup>



<sup>28</sup>

<sup>26</sup> January 6, 2012 Response, TSDR p. 12. With this product two bonders can be linked “via a communications cable to create a fully functional Dual Zone Hot Bonder.” *Id.*

<sup>27</sup> January 6, 2012 Response, TSDR p. 19.

<sup>28</sup> July 7, 2011 Office action, TSDR p. 25.



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**aeroform FRANCE** <sup>29</sup>



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**BriskHeat®** <sup>30</sup>

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<sup>29</sup> February 10, 2012 Office Action, TSDR p. 11.

<sup>30</sup> February 5, 2012 Office action, TSDR p. 5.



31



Applicant argues these examples show the “availability of numerous alternative configurations” and “strongly support[ ] a finding of non-functionality.” However, as explained by the Examining Attorney, the third-party examples relied on by Applicant, *i.e.*, WichTech, BriskHeat, Applied Heat, Aeroform France, ATACS and Zimac, do not necessarily evidence alternative configurations that provide the same utilitarian benefit. For example, the Applied Heat hot bonder is a single zone bonder and “must be linked via a communications cable to create a fully functional dual zone hot bonder.” Ex. Att. Br., 15 TTABVUE 16. As noted by the Examining Attorney:

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<sup>31</sup> February 5, 2012 Office action, TSDR p. 17.

[T]he dual zones of the applicant's arrangement enable the user to be able to handle two separate composite repairs simultaneously. The attachment of the power receptacle and vacuum hoses at the top edge of the unit allows the user to freely connect to heat blankets or other accessories. ... The position of the display away from the connecting ports also allows the user to actively monitor the part being repair[ed] while viewing the display screen and printouts. ... The arrangement of applicant's user interface into two zones that mirror each other, places the thermocouple connection ports at extreme opposite positions on the panel [whereas] the thermocouple jacks on the Aeroform France hot bonder are placed in a continuous line across the top of the panel. The applicant's arrangement of the widely separated thermocouple jacks appears safer as it lessens the likelihood of connecting the thermocouples to the wrong zone.

Ex. Att. Br., 15 TTABVUE 15-16.

The examples of hot bonders that do not include a raised display screen are not examples of alternatives for hot bonders that include a raised display screen and the single zone hot bonders that have a display screen on the side are not dual zone hot bonders. In both circumstances, the examples are not strong evidence of alternative designs.

The Examining Attorney also argues that "the infinite number of component configurations may be severely hampered upon consideration of industry standards and safety concerns. Hot bonders are often designed to be compliant with the repair specifications of the industries in which they operate." Ex. Att. Br. p. 14. Applicant's hot bonders are used by "Major Airlines, Repair Stations and the Military."<sup>32</sup> The Examining Attorney submitted an online advertisement for a portable hot bonder

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<sup>32</sup> January 6, 2012 Response, TSDR p. 10.

from a United Kingdom company describing its products as “Designed to be compliant with Airbus Industrie, Boeing, Eurofighter, GKN Westland and MoD composite repair specifications.”<sup>33</sup> As noted by the Examining Attorney, Applicant “provides ten thermocouple inputs per zone per aerospace manufacturers’ recommendations.”<sup>34</sup> We further note that some of Applicant’s hot bonders are “designed to meet the requirements of Class I, Division II, hazardous environment operation per the U.S. National Electric Code (NEC), as promulgated by the National Fire Protection Association (NFPA).”<sup>35</sup>

While we find that the third-party examples do not strongly support Applicant’s argument regarding the availability of other designs, we also observe that once functionality is found based on other considerations, there is “no need to consider the [third Morton-Norwich factor regarding] availability of alternative designs, because the feature cannot be given trade dress protection merely because there are alternative designs available.” *Becton, Dickinson and Co.*, 102 USPQ2d at 1378. *See also TrafFix*, 58 USPQ2d at 1006 (“Where the design is functional ... there is no need to proceed further to consider if there is a competitive necessity for the feature.”) The fact that other competitive alternatives may exist does not alter the

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<sup>33</sup> February 10, 2012 Office action, TSDR p. 16. While this advertisement is from a foreign website, Applicant’s products are used in the aerospace and rotor wing industries, and the idea that such companies require specifications is not a territorial consideration. In fact, Applicant’s promotional materials include a phone number in the United Kingdom. January 6, 2012 Response, TSDR p. 10.

<sup>34</sup> September 20, 2012 Office action, TSDR p. 42.

<sup>35</sup> January 6, 2012 Response, TSDR p. 11.



initial finding that the configuration is functional and, thus, unregistrable. *See also In re Bose Corp.*, 772 F.2d 866, 227 USPQ 1, 5-6 (Fed. Cir. 1985).

Accordingly, we conclude that the evidence of alternative designs does not support a finding of non-functionality.

#### Cost of Manufacturing

The information regarding the comparative costs of manufacturing for different designs resides with the Applicant and Applicant did not provide more than the one statement in its January 6, 2012 Response that “the three-dimensional configuration of the arrangement of the HCS9200M Composite Repair Set’s user interface components does not appear to be simpler or less expensive.”<sup>36</sup> This unsupported statement is not sufficient for us to make a determination on this factor and we consider it neutral in our analysis. Moreover, even if its interface is not “comparatively simple or cheap” to manufacture, this does not mean that the design is not functional. *In re American National Can Co.*, 41 USPQ2d 1841, 1844-45 (TTAB 1997).

#### **Analysis**

As noted above, the statute prohibits registration of a configuration that, “as a whole, is functional.” 15 U.S.C. §§ 1052(e)(5) and 1091(c). Applicant argues that “the existence of functional elements or components in the specific arrangement does not establish functionality of the specific arrangement, as a whole.” Supp. Br., 13 TTABVUE 9. It is Applicant’s contention that the “Examining Attorney has not

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<sup>36</sup> January 6, 2012 Response, TSDR p. 6.

made out a prima facie showing of functionality ... [and] [Applicant's] specific arrangement, as a whole, of user-interface components for the HCS9200M hot bonder is not essential to the use or purpose of the hot bonder, and there is no evidence that protecting [Applicant's] specific arrangement, as a whole, will disadvantage [Applicant's] competitors." Supp. Br., 13 TTABVue 18-19.

However, contrary to Applicant's argument, the USPTO may satisfy its burden of establishing that a configuration is functional by showing the functionality of various aspects of the configuration. In fact, "one object of the *Morton-Norwich* inquiry is to weigh the elements of a mark against one another to develop an understanding of whether the mark as a whole is essentially functional and thus non-registrable." *Becton, Dickinson and Co.*, 102 USPQ2d at 1376. As the Court of Appeals for the Federal Circuit explains, "functionality precedent indeed mandates that the Board conduct such an assessment [weighing the functional and non-functional factors] as part of its determination of whether a mark in its entirety is overall ... functional." *Becton, Dickinson and Co.*, 102 USPQ2d at 1376. *See also In re R.M. Smith, Inc.*, 734 F.2d 1482, 222 USPQ2d 1, 2 (Fed. Cir. 1984) ("[the board] proceeded to initially review the six features claimed by Smith to comprise its mark. Upon consideration of the entire design, the board found that not only were those features themselves highly functional, except perhaps for the ribs, but that the drawing as a whole included various other highly functional elements ... Based on the functionality of the individual features comprising the design, the board concluded that the design as a whole was de jure functional. We agree with the

board that the PTO attorney established a prima facie case of de jure functionality.”).

Here, the arrangement is composed entirely of functional parts but Applicant asserts that the arrangement by itself is non-functional and therefore is registrable on the Supplemental Register. Because Applicant has not depicted the individual features in broken lines they are collectively (if not individually) part of the mark and part of the analysis. Therefore, the functional features far outweigh any non-functional aspect of the arrangement which is incidental and hardly discernible as a separate element from the functional parts. While we do not foreclose the possibility, it is difficult to imagine a situation where the sum of a configuration’s entirely functional parts adds up to a design capable of indicating the source of the product. In any event, the case before us presents no such exception.

Even if we accept that the functional parts collectively are not intended as part of Applicant’s claim for its proposed mark, that is, they fall into the exception where functional features may be depicted in solid lines, the same analysis would apply in this case because without considering them there is no mark.

Finally, even if we do not weigh the functional features against the asserted non-functional arrangement, the record establishes the utilitarian nature of the arrangement itself. The record shows the arrangement of significant functional features is directed by utilitarian concerns to make operation of the device easier, safer and more efficient. *Becton, Dickinson and Co.*, 102 USPQ2d at 1376. Applicant’s interface provides specific utilitarian advantages in that it prevents

entanglement of cables (placement of the power receptacles and vacuum hoses at the top edge of the unit), creates a safer configuration of the various components (placement of thermocouple connection ports at opposite positions on the panel to prevent dual zones from connecting to each other), and affords an efficient and ergonomic arrangement, *inter alia*, allowing the user to engage in two processes by placing the monitor in the center with the keyboard in front and keeping the dual zones visually and physically separate. *See In re Bose Corp.*, 227 USPQ 1 (shape of loudspeaker system enclosure that conforms to the shape of the sound matrix held functional); *In re Dietrich*, 91 USPQ2d 162 (TTAB 2009) (spoke arrangement of bicycle wheel more stable with better performance than wheels with other spoke arrangements).

In short, the Examining Attorney has satisfied her burden in making a *prima facie* case and Applicant has not rebutted it with “competent evidence,” defined as “proof by preponderant evidence.” *Becton, Dickinson and Co.*, 102 USPQ2d at 1379.

Applicant’s reliance on certain case law does not persuade us of a different result. In *In re Honeywell Inc.*, 8 USPQ2d 1600 (TTAB 1988), the Board held that the round thermostat cover configuration was not functional based in part on the finding of no “evidence of use by competitors ... for so many years, despite applicant’s apparent lack of any patent and trademark protection for it.” The Board concluded that “the number of alternative designs available to competitors, although limited, is sufficient for this product.” *Id.* at 1604. In that case, the drawing and description included only a rounded cover; the inner workings and face

plate were not part of the applied-for mark. By contrast, here Applicant's mark is created by the arrangement of specific functional features.

In *Cartier, Inc. v. Four Star Jewelry Creations, Inc.*, 348 F. Supp. 2d 217 (S.D.N.Y. 2004), the court found the watch "trade dress as a whole" was not functional. However, in that case the watch trade dress incorporated elements not essential to the function of the watch, such as "Roman numerals, a cabochon, an octagonal winding stem, a minute track, a particular face shape, a particular shape of a watch case and its extensions connecting the face to the strap and a particular bracelet link formation or shape." *Id.* at 225. Here, as the Examining Attorney explains, the "configuration is comprised entirely of functional components such that their arrangement would not be 'non-functional' or 'purely ornamental.'" Ex. Att. Br., 13 TTABVUE 20. Each part is essential to the function of the hot bonder and each part is placed in such a way as to make operation easier, safer and more efficient.

Finally, in *In re Chesebrough-Pond's, Inc.*, 224 USPQ 967 (TTAB 1984), the Board stated there was nothing to indicate that the design has superiority over other possible designs. Here, the number of possible designs for a dual zone hot bonder is limited by, at a minimum, industry specifications, ease of use and space constraints. Where all or substantially all of an applicant's overall design is dictated by the function it performs, it is functional. *In re Vico Products Mfg. Co., Inc.*, 229 USPQ 364, 370 (TTAB 1985) (configuration of whirlpool jets for bathtubs held

functional because “the appearance of the body is adapted to the function it performs”).

In making our determination, we keep in mind the guidance from the Supreme Court that “[t]he functionality doctrine ... protects competitors against a disadvantage (unrelated to recognition or reputation) that trademark protection might otherwise impose, namely their inability reasonably to replicate important non-reputation-related product features.” *Qualitex Co. v. Jacobson Products Co., Inc.*, 514 U.S. 159, 34 USPQ2d 1161, 1165 (1995). To afford registration to functional designs would inhibit legitimate competition by, in effect, granting a monopoly to a non-reputational, or non-source-identifying, feature of a product. *Id.*, 34 USPQ2d at 1163-64. As emphasized in *Morton-Norwich*, which sets out the four analytical factors, “the effect on competition ‘is really the crux of the matter,’” and a balance must be struck “between the ‘right to copy’ and the right to protect one’s method of trade identification.” *Morton-Norwich*, 213 USPQ at 15-16.

Based on all of the record evidence and arguments in relation to the *Morton-Norwich* factors, we find that the overall design of Applicant’s configuration is “essential to the use or purpose of the article.” *TrafFix*, 58 USPQ2d at 1006. Thus, we find that the configuration as a whole is functional and is not registrable on that basis.

### **DRAWING**

Although we have found the configuration as a whole to be functional which renders the drawing requirement moot, for completeness we address the drawing

refusal directed to the individual functional user-interface components. A drawing depicts the mark sought to be registered. Trademark Rule 2.52, 37 C.F.R. § 2.52. Product configuration marks require special form drawings and must depict matter not claimed as part of the mark in broken lines. Broken lines must also be used to indicate placement of the mark. Trademark Rule 2.52(b)(4), 37 C.F.R. § 2.52(b)(4). The Examining Attorney argues that the functional elements of the mark may not be registered and “to show that they are not part of the mark, functional elements must be depicted in broken or dotted lines on the drawing to show the position or placement of the claimed portion of the mark.” Ex. Att. Br., 15 TTABVue 21. Further, because “applicant asserts that the proposed mark is for the arrangement of the components ... the functional components themselves must be shown in dotted lines to show their position.” *Id.* at 16.

Applicant argues:

[T]he components of the user interface currently shown in solid lines should remain in solid lines because each of these components is an element of the specific, three-dimensional arrangement, as a whole, of the user-interface components of the HCS9200M Composite Repair Set. ... Because the mark is the specific, three-dimensional arrangement, as a whole, of the user-interface components of the HCS9200M, the whole user interface should be shown in solid lines. And although the mark includes elements that should be shown in broken or dotted lines because they are functional, if doing so would result in an unclear depiction of the mark, the applicant may use solid lines to show the elements. ... If the drawing of the mark, ... were amended to show each component of the whole user interface in broken or dotted lines, then the drawing of the mark would not include any solid lines. And thus, the specific arrangement, as a whole, of the user-interface components of the HCS9200M

Composite Repair Set would not be clearly depicted in the drawing.

Supp. Br., 13 TTABVUE 19-20.

The Examining Attorney responds that where dotted lines would result in an unclear depiction of the mark and an applicant uses solid lines, an applicant must “insert a statement in the description of the mark identifying these elements and declaring that these elements are not part of the mark and that they serve only to show the position of the mark on the goods ... [and here] applicant claimed the elements as a part of the overall configuration and failed to insert a statement to the contrary.” Ex. Att. Br., 15 TTABVUE 23.

The TMEP provides:

In rare instances where it is impractical to render certain elements of a mark in dotted or broken lines – for example, if those elements are proportionally so small as to render dotted lines illegible – or if dotted lines would result in an unclear depiction of the mark, the applicant may use solid lines. However, the applicant must insert a statement in the description of the mark identifying these elements and declaring that these elements are not part of the mark and that they serve only to show the position of the mark on the goods, as appropriate.

TMEP § 1202.02(c)(i).

Without the benefit of an example of the drawing with the functional features in dotted lines, it is difficult to tell whether the drawing required by the Examining Attorney would be an unclear depiction, although none of the functional features is so small as to create difficulty and the scope of the mark is clearly explained in the description. However, Applicant did not include a statement in the description of the mark indicating these elements remaining in solid lines in the drawing are not



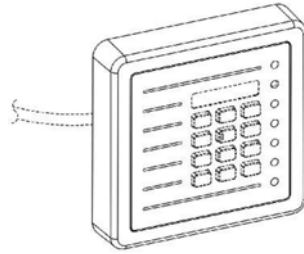
part of the mark. In fact, Applicant's argument could be interpreted to mean Applicant is including within its claim the shape of each functional feature in addition to the specific location wherein it resides with other specific functional features in specific locations. The Examining Attorney provided examples of registrations wherein the drawing of the configuration, which included the location/arrangement of certain functional features, depicted those features in broken lines. For example, in Reg. No. 4058153 the mark is described as follows:<sup>37</sup>

The mark consists of a three dimensional configuration of an RFID reader comprising a housing having a generally quadrangular front face and a plurality of side surfaces connected to the front face. The front face defines a rounded peripheral edge which transitions into the plurality of side surfaces, and further includes a generally quadrangular groove. The front face additionally includes five short grooves in vertical alignment with each other, a generally quadrangular recess and an indicator light disposed along a common horizontal axis with the uppermost short groove. A pair of long grooves are disposed on opposing ends of the short grooves. Six rounded depressions are formed within the front face and are aligned along a common vertical axis with the indicator light and are horizontally aligned with respective ones of the short and long grooves. **The front face additionally includes an offset keypad shown in dotted lines. The matter shown in broken or dotted lines is not part of the mark and serves only to show the position or placement of the mark.** (emphasis added)

The drawing depicts the inclusion of a keypad in broken lines.

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<sup>37</sup> September 20, 2012 Office action, TSDR p. 79.



In view of the functionality of the individual components, the requirement to depict them in broken lines is appropriate. We are not persuaded that such depiction would be “unclear.” Moreover, to the extent it would be “unclear” the requirement to insert a statement in the description of the mark identifying these elements and declaring that these elements are not part of the mark and that they serve only to show the position of the mark on the goods is also appropriate.

**Decision:** The refusal to register the configuration on the Supplemental Register on the ground that the configuration is functional is affirmed. The refusal to register the configuration for failure to comply with the drawing requirement is affirmed.