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## **De jure functionality of shapes driven by technical considerations in manufacturing methods**

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### **1. Introduction**

In *Société Des Produits Nestlé v Cadbury UK*<sup>1</sup> the High Court of Justice submitted a reference for a preliminary ruling to the CJEU focussing on whether Article 3(1)(e)(ii) of the European Trade Mark Directive (TMD)<sup>2</sup>—to be replaced by Article 4(1)(e)(ii) of Directive (EU) 2015/2436 as of 15 January 2019 (2015 Trade Mark Directive)—is applicable to shapes which are necessary to obtain a technical result with regard to the manner in which the goods are manufactured as opposed to the manner in which the goods function. The CJEU opined that the manufacturing method used to produce the relevant goods is legally immaterial in this context.<sup>3</sup>

Adhering to the opinion of Advocate General Wathelet in *Nestlé*,<sup>4</sup> the paper pleads in favour of a teleological interpretation that would bar the registration of three-dimensional signs whenever the grant of trade mark rights therein is bound to interfere with the ability of the public to practice unpatented technical teachings related to manufacturing processes.<sup>5</sup> Registration should be precluded since the social cost of inhibiting the practice of unpatented technical rules exceeds any possible social benefit derived by the source-designating function of a shape mark, the protection of which would improve market transparency.<sup>6</sup>

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<sup>1</sup> *Société Des Produits Nestlé v Cadbury UK* [2014] EWHC 16 (Ch); [2014] E.T.M.R. 17.

<sup>2</sup> Directive 2008/95/EC of the European Parliament and of the Council of October 22, 2008 to approximate the laws of the Member States relating to trade marks (codified version), [2008] O.J. L299/25 (EC) [hereinafter TMD]. This Directive codified the First Council Directive 89/104/EEC of 21 December 1988 to approximate the laws of the Member States relating to trade marks, [1989] O.J. L040/1 (EC). Directive 2008/95 is repealed with effect from 15 January 2019 by Directive (EU) 2015/2436 of the European Parliament and of the Council of 16 December 2015 to approximate the laws of the Member States relating to trade marks [2015] O.J. L336/1 (EU) [hereinafter 2015 Trade Mark Directive], which entered into force on 12 January 2016.

<sup>3</sup> *Société des Produits Nestlé SA v Cadbury UK Ltd*, (Case C-215/14), ECLI:EU:C:2015:604; [2015] E.T.M.R. 50.

<sup>4</sup> *Nestlé*, (Case C-215/14) ECLI:EU:C:2015:395; [2015] E.T.M.R. 50, Opinion of Advocate General Wathelet at [72]-[78].

<sup>5</sup> See also A. Kur & M. Senftleben, *European trade mark law – A commentary*, 168 (2017).

<sup>6</sup> Cf. *Christian Louboutin S.A. v. Yves Saint Laurent America Inc.*, 696 F.3d 206, 222 (2d Cir. 2012) (citing *Fabrication Enterprises, Inc. v. Hygenic Corp.*, F.3d 53 (2<sup>nd</sup> Cir. 1995) for the proposition that the assessment of aesthetic functionality under US trade mark law entails a careful balance

Furthermore, it will be argued that this interpretation lies within the textual limits of the provision. The “Kit-Kat” litigation in the UK will serve as a case study for the analysis under European and UK trade mark law. In a separate part dedicated to the US doctrine of functionality, the paper will examine how US trade mark law grapples with the same problem.

Although the 2015 Trade Mark Directive has extended the European functionality doctrine’s scope to include not only the shape but also the characteristics of products, it does not appear that the new rule was designed to resolve the problem of trade mark proprietors being able to prevent third parties from practicing unpatented methods of manufacture by asserting trade mark rights in product shapes or features. The European legislator rather seems to have been concerned with those cases in which the goods’ function or value is determined by some product characteristic.<sup>7</sup> As a result, the need for a teleological interpretation allowing the competent authorities to prevent such abuse of the trade mark system remains even in the aftermath of the trade mark reforms.

The analysis places emphasis on determining the functional characteristics of the marks involved to highlight the need for a meticulous assessment of the technical considerations reflected in product shapes and/or some of their features when assessing the monopoly concerns underlying s. 3(2)(b) TMA 1994 or applying the US doctrine of functionality. The failure to determine precisely the technical rules manifested in the shape of products creates the danger of establishing trade mark rights likely to hamper the utilization of unpatented technical solutions.

## **2. The “Kit-Kat” litigation: the shape and its contribution to the product’s function**

In the absence of a clear norm explicitly addressing the legal problem at hand. Case law, therefore, plays a pivotal role. Competent authorities and courts carry the responsibility of ascertaining the presumed intention of the legislator in the light of the teleology underlying the relevant trade mark norms. The “Kit-Kat” litigation was a great opportunity to revisit and elaborate on the policies served by the European doctrine of functionality, which, unfortunately, has become redundant.

The dispute was in fact another battle between Nestlé and Cadbury within the so-called “chocolate wars.” Cadbury opposed Nestlé’s application to register the shape of the “Kit-Kat” chocolate bar as a trade mark. Just like almost any other chocolate bar, the product is comprised of a basic rectangular slab shape, which

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between the competitive benefits of protecting a mark’s source-identifying aspects vis-à-vis the competitive costs of precluding competitors from copying a product shape or feature feature).

<sup>7</sup> Max Planck Institute for Intellectual Property and Competition Law, Munich (now MPI for Competition and Innovation), Study on the overall functioning of the European Trade Mark System 71-72 (2011) available at <http://bookshop.europa.eu/en/study-on-the-overall-functioning-of-the-european-trade-mark-system-pbKM3113705/>

in turn is made up of four fingers running horizontally across the width of the bar. Nestlé sought to register the shape of their iconic brand for the following goods in class 30: chocolate; chocolate confectionery; chocolate products; confectionery; chocolate-based preparations; bakery goods; pastries; biscuits; biscuits having a chocolate coating; chocolate coated wafer biscuits; cakes; cookies; wafers.

The hearing officer identified the essential characteristics of Nestlé's mark in accordance with the guidance provided by the CJEU in *Lego* as follows:<sup>8</sup> i) the rectangular "slab" shape of the mark as it appeared on the application form, including the relative proportions of length, width and depth; ii) the presence, position and depth of the breaking grooves arranged along the length of the bar, which effectively divide the bar into detachable fingers; and iii) the number of such grooves, which in combination with the bar's width determine the number of fingers.

In terms of the first essential characteristic, the hearing officer held that it resulted from the nature of a moulded chocolate, which may, or may not, contain filling such as wafer, or of a moulded chocolate biscuit sold in bar form.<sup>9</sup> Although the hearing officer recognized that there are some moulded and other enrobed chocolate products taking shapes other than the rectangular slab, he considered that shape to be the basic form of appearance of the relevant goods. As he phrased it, "[i]t is obviously an easy and cheap way to provide the consumer with a given amount of chocolate product in a shape, which presents less difficulty to mould, wrap and stock than other fancier shapes. That is why most moulded chocolate bars take the same basically rectangular 'slab' shape."<sup>10</sup> In other words, the hearing officer seems to suggest that the shape at issue is the dominant design in the relevant market, namely a design that has prevailed during the innovation process, as it allows for economies of scale and leads to a durable product that is effective at satisfying the needs of the consuming public.<sup>11</sup>

The fact that the relevant goods may take other forms simply meant, in his view, that some other chocolate bars or biscuits do not consist of a shape resulting from the nature of the goods themselves.<sup>12</sup> The hearing officer concluded therefrom that the application should be rejected except with regard to cakes and pastries.<sup>13</sup> His assessment is consistent with the guidance provided by the CJEU in *Hauck*, regarding the application of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive). In that case, the court held that the preliminary obstacle applies whenever a given shape contributes to the generic

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<sup>8</sup> Trade mark application No. 2552692 by Société Des Produits Nestlé S.A. to register a trade mark in Class 30 and opposition No. 101495 by Cadbury Ltd, at [66].

<sup>9</sup> *Id.* at [72].

<sup>10</sup> *Id.*

<sup>11</sup> On the concept of dominant design see J.M. Utterback & W.J. Abenarthy, "A Dynamic Model of Process and Product Innovation" *Omega* 3(6): 639-56 (1975).

<sup>12</sup> Trade mark application No. 2552692 by Société Des Produits Nestlé S.A. to register a trade mark in Class 30 and opposition No. 101495 by Cadbury Ltd, at [73].

<sup>13</sup> *Id.* at [71]. In the appeal proceedings, the High Court held that the hearing officer's reasoning was equally applicable to chocolate-covered, finger-shaped cakes and pastries.

function of the goods for which registration is sought regardless of whether there are various alternative designs with the same effect.<sup>14</sup> The hearing officer went on to point out that, despite the possibility that the rectangular slab may feature more variants given the relative proportions of length, width and depth of the usual moulded bar shape could be varied, the design scope remains limited.<sup>15</sup> A very thick product, for instance, would be difficult to break into individual pieces and consume.

As regards the second essential characteristic, the hearing officer held that it was a feature necessary to obtain a technical result within the meaning of s. 3(2)(b) TMA 1994. The presence of breaking grooves is actually serving the purpose of permitting the product to be broken up for consumption.<sup>16</sup> Similarly, the grooves constitute a feature, whose configuration in terms of depth depends on two variables, namely the product's structural integrity in manufacture and transit as well as the consumer's convenience in consuming the bar by breaking it into regular-shaped fingers.<sup>17</sup>

As for the third essential characteristic, that is the number of fingers, the hearing officer held that it also was a feature necessary to obtain a technical result within the meaning of s. 3(2)(b) TMA 1994. The number of fingers does not reflect an arbitrary choice but is actually determined by the portion size chosen by the manufacturer to be placed on the market.<sup>18</sup> It might be possible to market different chocolate bars with varying numbers of fingers. In any event, the number of fingers would be determined by the portion size. Once it is established that the number of fingers is dedicated to obtain a technical result, registration is precluded for that feature by s. 3(2)(b) TMA 1994 despite the existence of alternative features deemed equally efficient.<sup>19</sup>

Registration could not, however, be precluded for the configuration of the "Kit-Kat" chocolate bar on the grounds of the preliminary obstacle because neither s. 3(2)(a) nor 3(2)(b) TMA 1994 were applicable to the shape as a whole. The individual indents of Article 3(1)(e) TMD (Article 4(1)(e) of the 2015 Trade Mark Directive) are independent and separate grounds for refusal. Each one has to be interpreted in the light of the underlying public interest. They cannot be applied cumulatively, as the CJEU pointed out.<sup>20</sup>

Another interpretation is possible if one looks at the very purpose of determining the essential characteristics of shapes before assessing the shape's

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<sup>14</sup> *Hauck GmbH & Co. KG v Stokke A/S, Stokke Nederland BV, Peter Opsvik and Peter Opsvik A/S* (Case C-205/13) EU:C:2014:2233; [2014] E.T.M.R. 60 at [25]-[27] ("Tripp Trapp Chair").

<sup>15</sup> Trade mark application No. 2552692 by Société Des Produits Nestlé S.A. to register a trade mark in Class 30 and opposition No. 101495 by Cadbury Ltd, at [74].

<sup>16</sup> *Id.* at [75].

<sup>17</sup> *Id.* at [76].

<sup>18</sup> *Id.* at [77].

<sup>19</sup> *Id.* at [64] and [82]. *Koninklijke Philips Electronics NV v Remington Consumer Products Ltd* (Case C-299/99) [2002] E.C.R. I-5475; [2002] E.T.M.R. 81 at [83]; *Lego Juris A/S v Office for Harmonisation in the Internal Market (Trade Marks and Designs) (OHIM), Mega Brands, Inc* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [83].

<sup>20</sup> *Nestlé*, (Case C-215/14) ECLI:EU:C:2015:395; [2015] E.T.M.R. 50 at [51].

technical character. This is done to avoid possible abuses of the trade mark system where the applicant seeks to monopolize non-protectable subject matter by including non-technical elements in the sign for which registration is sought.<sup>21</sup> Since the rectangular slab constitutes one of the very basic shapes that the relevant goods take, the court could have considered it to be a non-essential characteristic and then proceed on the basis that the fingers and the grooves constitute a non-protectable functional unity. The new Article 4(1)(e)(ii) of the 2015 Trade Mark Directive could be of assistance when the mark consists exclusively of a product characteristic that is technical.

### 3. The “Kit-Kat” litigation: the shape and its association with the underlying manufacturing process

Evidence suggested that the shape of Nestlé’s chocolate bar was driven by technical considerations for the additional reason of being closely associated with the moulding process, which is the most common manufacturing method for multiple finger chocolate bar products.<sup>22</sup> The final product configuration emerges after liquid chocolate solidifies around a finger-shaped piece of wafer (the “wafer center”) within a hollow container (the mould).

The sides of that mould must be slanted to allow the end product to be lifted off or pulled out easily and without being damaged. This slant is called the “draft” or “release” angle. For chocolate-moulded products, the minimum “release” angle is 8-10 degrees. This angle may be a bit smaller, but from one point onwards, such as that of 30 degrees, it requires the use of more chocolate and, as a result thereof, production becomes less efficient.<sup>23</sup> Cadbury adduced expert evidence in the form of witness testimony, with the witnesses being subjected to cross examination, which indicated that with a 14-degree “release” angle, the shape of the “Kit-Kat” chocolate lay within the optimal range required by the manufacturing process.<sup>24</sup>

Due to the fragility of the “wafer center” being comprised of conjoined wafer fingers, the adoption of the rectangular “slab” shape is an essential step of the manufacturing method, thereby ensuring the biscuit’s integrity throughout the production process.<sup>25</sup> For the same reason, the moulding process is preferable to enrobing, a method focusing on dipping chocolate centres into liquid chocolate

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<sup>21</sup> Arnold J was willing to accept such an argument raised by Cadbury’s counsel, noting also that in the *Lego* case, (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63, the essential characteristics of the toy-brick’s shape were identified as not including its basic brick shape, which indeed resulted from the nature of the goods, *Nestlé* [2014] EWHC 16 (Ch); [2014] E.T.M.R. 17 at [70]-[71]. See also V. Liakatou & S.M. Maniatis, “Lego – building a European concept of functionality” [2010] E.I.P.R. 653 (stressing the practical importance of determining the essential characteristics of shapes in trade mark litigation).

<sup>22</sup> Trade mark application No. 2552692 by Société Des Produits Nestlé S.A. to register a trade mark in Class 30 and opposition No. 101495 by Cadbury Ltd, at [39]-[48] (providing a detailed account of the expert’s opinion, which was heavily relied upon by the hearing officer).

<sup>23</sup> *Id.* at [39 iv)] and [78].

<sup>24</sup> *Id.*

<sup>25</sup> *Id.* at [39 i), ii), vii), x), xi)]

through industrialized processes for producing multiple finger chocolate bar products.<sup>26</sup>

As for the reverse trapezoid shape of the end product's fingers, it is also associated with the moulding process. Before being sliced into fingers, wafers are formed in long sheets having a square profile. Apparently, a finger with a square profile is easy to make and therefore its use constitutes an obvious step of the underlying manufacturing process. Making wafer fingers with a trapezoid or triangular profile would make things "a bit more complicated."<sup>27</sup> The trapezoid shape resulting from the solidification of the liquid chocolate around the square-profiled wafer within the mould reflects the obvious way of manufacturing the product. The various alternative shapes available for the end product's fingers such as the square shape, the semi-sphere shape or the triangular shape would create a situation where chocolate would be unevenly distributed across the fingers.<sup>28</sup> In addition, those other shapes would require the use of more chocolate, which would in turn create inefficiencies as chocolate is more expensive than wafer.<sup>29</sup>

Cadbury further argued that the "plinth" running around the perimeter of the product allows for its consistent feeding into automatic wrapping machines by avoiding the problem of one product riding up over the next product on the conveyor belt. The hearing officer was not convinced that the feature was in fact dictated by said technical considerations, but he did not really delve into the matter any further.<sup>30</sup>

Nonetheless, the shape is so closely associated with a given manufacturing process that subjecting it to trade mark rights would substantially interfere with the public's ability to execute that unpatented production method. Obviously, the manufacturing method used by Nestlé generates efficiencies that are also present throughout the various stages of the product's life cycle such as those pertaining to its distribution, sale and consumption. Hence, there are plenty of reasons to be concerned about the scope of the trade mark monopoly in that particular case.

In most cases, a shape that is closely associated with a manufacturing process would also be a shape through which a technical result is obtained. The Philips three-headed rotary shaver, for instance, owed its equilateral triangle-configuration to a manufacturing process that allowed for the driving of the

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<sup>26</sup> This suggests that the said manufacturing method might be superior, which is an aspect that should be factored into the interpretation of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive), considering the anticompetitive effects that would accrue if the absolute ground for refusal were held inapplicable.

<sup>27</sup> Trade mark application No. 2552692 by Société Des Produits Nestlé S.A. to register a trade mark in Class 30 and opposition No. 101495 by Cadbury Ltd, at [80].

<sup>28</sup> *Id.* at [39 x)], see also the diagram at [55].

<sup>29</sup> *Id.*

<sup>30</sup> *Id.* at [48].

rotating cutters to be obtained with fewer cogwheels.<sup>31</sup> It was not examined whether the use of more cogwheels would somehow affect the manufacturing cost or the reliability of the device. The configuration of the razor heads was anyway excluded from protection since it was solely attributed to the achievement of a technical result, which was the removal of facial hair.<sup>32</sup> Nevertheless, the example of Nestlé's chocolate bar does not exclude the possibility that in some instances a sign might not, as a whole, be exclusively driven by the consideration of serving the utilitarian function of the trademarked good, but could still be excluded from registration pursuant to s. 3(2)(b) TMA 1994 for being closely associated with the product's manufacturing method. Product characteristics might be dictated by a process of manufacture as well.

There can indeed be other instances where a product shape or feature might not yield a technical result but nevertheless incorporate some other technical teachings. The concern of using a legal test that would be over-inclusive and eventually destroy valuable commercial symbols has led to some refined and restrictive interpretations of the term "technical result" for the purpose of applying the preliminary obstacle.<sup>33</sup> Notably, the OHIM, now EUIPO, did not consider that the shape of the "Kit-Kat" chocolate bar was necessary to obtain a technical result within the meaning of the second indent.<sup>34</sup> Without providing a detailed justification, the competent authority held that the partitioning of the product into four portions at the moment of consumption is neither a technical solution nor a function of the goods at issue, i.e. sweets, bakery products, pastries, biscuits, cakes and waffles. The shape of four identical trapezoidal bars aligned together on a rectangular base was therefore deemed to be neither technical nor essential to the function of the relevant goods.<sup>35</sup> No further analysis or criticism of that decision can be elaborated at this point.<sup>36</sup> However, it appears

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<sup>31</sup> *Philips Electronics BV v Remington Consumer Products* (No. 1) [1998] R.P.C. 283, 305 (referring to evidence taken into account by Judge Göran Nilsson's dissenting opinion in *Ide Line AG v Philips Electronics NV*, Case No. T7-1316-94, T7-249-97, [1997] E.T.M.R. 377).

<sup>32</sup> *Koninklijke Philips NV v Remington Consumer Products Ltd*, [2006] F.S.R. 30 at [62].

<sup>33</sup> In this context, it is worthwhile to mention a case decided by the Federal Supreme Court of Germany, BGH, Beschluss vom 9. 7. 2009 - I ZB 88/07 (BPatG), GRUR 2010, 138 - ROCHER-Kugel. The issue there was whether the shape of the Ferrero Rocher chocolate could be protectable as a trade mark. Registered trade mark rights had already been established in the shape after the applicant was able to demonstrate that it had acquired distinctiveness through use. A third party sought a declaration that the trade mark was invalid since its registration ran afoul of § 3 II Nr. 2 Markengesetz, namely the provision that implemented Article 3(1)(e)(ii) TMD. The German Patents and Trade Marks Office rejected the petition. On appeal before the Federal Patent Court of Germany, it was held that the spherical form and the nut-sprinkled surface of the chocolate were not necessary for attaining a technical result. When eaten, the shape generated a particular haptic effect without contributing anything to the product's taste. The haptic effect could not, in the view of the court, be considered a technical effect within the meaning of § 3 II Nr. 2 Markengesetz. The reason provided by the court for its conclusion was that patent law jurisprudence accepted the technical character of inventions pertaining to the taste of foodstuffs, but the same was not applicable to inventions related to haptic effects.

<sup>34</sup> *Société des Produits Nestlé S.A. v Cadbury Holdings Ltd*, Case R 513/2011-2, Second Board of Appeal of the Office for Harmonisation in the Internal Market (Trade Marks And Designs) [2013] E.T.M.R. 25 at [109].

<sup>35</sup> *Id.* at [104]-[109].

<sup>36</sup> A point of criticism would be that the technical result referred to in the provision may relate to the way the product is being used. *Cf.* the US approach as crystallised in *Inwood Laboratories v.*

that in a case where the shape at issue is not considered to be dedicated to the utilitarian purpose of the article, the competent authority must still subject all technical considerations related to the goods' manufacturing process to scrutiny so as to avoid any impediments to the free use of technical solutions.<sup>37</sup> If the trade mark proprietor manages to convince the court that the effect promulgated by the shape is not technical, for instance, by narrowly defining the product's function, for instance, then the defendant should at least have the possibility to argue that the shape is closely associated with a manufacturing process. Such "double control" would effectively safeguard against abuses of the trade mark system.

In the end, the hearing officer found the expert evidence submitted by Nestlé credible. On appeal, Arnold J agreed with him and was willing to affirm that s. 3(2)(b) TMA 1994 precluded the registration of the shape on the grounds that it incorporated technical considerations associated with the practicing of a manufacturing process.<sup>38</sup> However, the wording of the provision implementing Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) does not specifically state, according to the judge's view, whether it excludes only those shapes from registration that are necessary to achieve a technical result or also covers shapes driven by technical considerations that pertain to the manufacture of the relevant goods. In the absence of absolute clarity concerning the interpretation of the TMD, the British court referred, as already noted, a relevant question to the CJEU. The court replied that Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) prescribes the non-registrability of shapes dedicated to the attainment of a technical result without addressing the way the trademarked goods are manufactured.<sup>39</sup>

Now we will examine in a first step, whether this analysis is consistent with the teleology of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive), and then determine in a second step, should the first question be answered in the negative whether the wording of the provision is broad enough to encompass a purposive interpretation, according to which a three-dimensional mark would be considered non-registrable or declared invalid

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*Ives Laboratories*, 456 U.S. 844, 850, n.10 (1982): "In general terms, a product feature 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." (Emphasis added).

<sup>37</sup> See, for instance, *id.* at [107] where the competent authority considered the trapezoidal shape of each finger as an arbitrary element missing the technical considerations reflected in that product feature.

<sup>38</sup> *Nestlé* [2014] EWHC 16 (Ch); [2014] E.T.M.R. 17 at [72]-[74].

<sup>39</sup> The Federal Patent Court of Germany, BPatG, Beschluss vom 9. 5. 2007 - 32 W (pat) 156/04, GRUR 2008, 420 - ROCHER-Kugel, argued also that the shape of the Ferrero Rocher chocolate could not be excluded from protection with the argument that its production conformed with a technical rule of manufacture since, in its view, the wording of § 3 II Nr. 2 Markengesetz clearly refers to the effect that the shape produces and not to the underlying manufacturing method. The dispute went all the way up to the Federal Supreme Court of Germany, which upheld the judgment of the lower court in this respect. The German Patents and Trade Marks Office (DPMA) was willing to accept that legal argument, as reported in the decision of the BPatG, but it did not share the view that the particular form at issue was dictated by a manufacturing technique in the first place.



because it creates impediments to the free use of a non-patented manufacturing process.

#### **4. The teleology of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive)**

The preliminary obstacle to the registration of shape marks prescribed in Article 3(1)(e) TMD (Article 4(1)(e) of the 2015 Trade Mark Directive) contains three separate and independent absolute grounds for refusal, each of which must be interpreted in the light of underlying public interest.<sup>40</sup> All three indents of Article 3(1)(e) TMD (Article 4(1)(e) of the 2015 Trade Mark Directive) promote the public interest by preventing the monopolization of technical solutions or functional characteristics of a product, which a user is likely to seek in the products of competitors.<sup>41</sup> At the same time, these absolute grounds for refusal share the aim of preventing the exclusive and permanent right, which a trade mark confers, from serving to extend indefinitely the life of other rights, which the EU legislature has sought to make subject to temporal limitations.<sup>42</sup>

While the aforementioned policies are common to the three rules that specifically address the registrability of shape marks, each absolute ground for refusal serves a distinct and clearly identified aspect of the public interest. Each indent is, so to say, entrusted with a different mission within that policy framework. Accordingly, the CJEU has ruled that Article 3(1)(e)(ii) TMD is “intended to preclude the registration of shapes whose essential characteristics perform a technical function, with the result that the exclusivity inherent in the trade mark right would limit the possibility of competitors supplying a product incorporating such a function or at least limit their freedom of choice in regard to the technical solution they wish to adopt in order to incorporate such a function in their product.”<sup>43</sup> In addition, within the system of the preliminary obstacle, it is the second indent that will in its function as a separate and independent norm implement the public interest against the monopolization of technical solutions.<sup>44</sup>

The quintessential type of sign excluded from registration under Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) is the shape, or a product characteristic, which is meant to serve the utilitarian purpose of the trademarked good, irrespective of whether the same technical result can be obtained through alternative designs or product features.

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<sup>40</sup> *Windsurfing Chiemsee Produktions- und Vertriebs GmbH v Boots- und Segelzubehör Walter Huber and Franz Attenberger*, (Joined Cases C-108/97 and C-109/97), [1999] ECR I-02779, [1999] ETMR 585 at [25]-[27].

<sup>41</sup> *Philips* (Case C-299/99) [2002] E.C.R. I-5475; [2002] E.T.M.R. 81 at [78]; *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [43]; *Hauck* (Case C-205/13) EU:C:2014:2233; [2014] E.T.M.R. 60 at [18].

<sup>42</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [46]; *Hauck* (Case C-205/13) EU:C:2014:2233; [2014] E.T.M.R. 60 at [19].

<sup>43</sup> *Philips* (Case C-299/99) [2002] E.C.R. I-5475; [2002] E.T.M.R. 81 at [79].

<sup>44</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [43]-[45].

By excluding such technical shapes and features from trade mark protection, the law protects the competitors' absolute freedom to choose the technical solution they wish to use to promulgate the utility their product is supposed to offer.<sup>45</sup> Hence, the preliminary obstacle promotes competition by imitation of technical features. Trade mark protection is indeed a constituent element of a system relying on effective competition.<sup>46</sup> Trade marks economize consumer search costs by allowing buyers to purchase the product of their choice without unnecessary complications.<sup>47</sup> Consumers rely on trade marks to obtain information pertaining to the commercial origin of goods and services,<sup>48</sup> which in turn allows them to repeat successful purchases or avoid products that have not lived up to their expectations in the past.<sup>49</sup> As a result thereof, traders are incited to maintain or even improve their quality standards. Some trade mark norms, such as those related to the protection of marks with a reputation against free-riding encourage investments towards creating and maintaining a brand image. Over the years, trade mark rights have been extended both in terms of subject matter and scope. Therefore, the development of legal doctrines by courts and the introduction of special provisions by the legislator for the purpose of harnessing the monopolistic tendencies of trade mark rights was necessary to avoid social losses that would be incurred whenever the social costs of protection exceeded its social benefits. Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) creates conditions of free competition with regard to technical features. Thus, the provision is there to promote market freedom.<sup>50</sup> As the CJEU pointed out in *Lego*, the preliminary obstacle reflects the idea that a properly limited protection of trade mark rights would "help establish a healthy and fair system of competition."<sup>51</sup>

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<sup>45</sup> *Philips* (Case C-299/99) [2002] E.C.R. I-5475; [2002] E.T.M.R. 81 at [79].

<sup>46</sup> See also recital 2, TMD (considering the need for harmonized trade mark laws in Europe as necessary for avoiding impediments to the free movement of goods and the freedom to provide services that would distort competition); recitals 7 and 8 of the 2015 Directive (noting that further harmonization of trade mark protection aims at improving the functioning of the internal market as well as enhancing competitiveness and growth of European businesses); recitals 2-4 of Council Regulation (EC) No 207/2009 of 26 February 2009 on the European Union Trade Mark (linking EU-wide trade mark protection to a harmonious development of economic activities and a continuous and balanced expansion by completing a properly functioning single market).

<sup>47</sup> W.A. Landes & R.A. Posner, "The Economics of Trademark Law" 78 *Trademark Reporter* 267 (1988); R. van den Bergh & M. Lehmann, "Informationsökonomie und Verbraucherschutz im Wettbewerbs- und Warenzeichenrecht" *GRUR Int* 1992, 588; M. Lehmann & T. Schönfeld, "Die neue europäische und deutsche Marke: Positive Handlungsrechte im Dienste der Informationsökonomie" *GRUR* 1994, 481; S. Dogan & M. Lemley, "Trademarks and Consumer Search Costs on the Internet" 41 *Hous. L. Rev.* 777 (2005).

<sup>48</sup> *Canon Kabushiki Kaisha v Metro-Goldwyn-Mayer Inc.*, (Case C-39/97), [1998] E.C.R. I-5507, [1999] *ETMR* 1 at [28].

<sup>49</sup> *Rewe Zentral AG v Office for Harmonisation in the Internal Market (Trade Marks and Designs) (OHIM)*, (Case T-79/00), [2002] E.C.R. II-705 at [26].

<sup>50</sup> U. Suthersanen, "The European Court of Justice in *Philips v Remington* – trade marks and market freedom" [2003] *IPQ* 257; On the anti-monopoly impulse underlying the provision see generally D. T. Keeling "About Kinetic watches, easy banking and nappies that keep a baby dry: a review of recent European case law on absolute grounds for refusal to register trade marks" *I.P.Q.* 2003, 2, 131.

<sup>51</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [44].

As already noted, the normative system of the preliminary obstacle, which is comprised of the rules contained in the three said indents, also seeks to prevent the emergence of potentially perpetual exclusive rights in subject matter that can only be protected for a limited period according to the European legislator's intention and to implement the policy consideration for partitioning intellectual property law for the purpose of obtaining a consistent regulation. Hence, the preliminary obstacle implements the interest in distinctly separating trade mark protection from the protection conferred through other forms of intellectual property by demarcating their regulatory fields.<sup>52</sup> As a separate and independent ground for refusal, the second indent promotes these policies in the realm of technical rules, regulating in particular the interface between trade marks and patents.<sup>53</sup> Rights of exclusivity in technical teachings are granted in exchange of disclosing new and inventive technical contributions. They may not, and should not, be established just because someone managed to be the first party filing an application to register a shape incorporating a technical solution as a trade mark.<sup>54</sup>

Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) is often seen as a manifestation of a general principle underlying European trade mark law formulated as the "need to keep free," which has its roots in the traditions of German trade mark law ("Freihaltebedürfnis").<sup>55</sup> That notion reflects public policy considerations and stands for the proposition that some signs must be kept free from trade mark constraints. In German literature, the preliminary obstacle implemented in § 3(2) Markengesetz is considered to prescribe an "absolute need to keep free" ("absolutes Freihaltebedürfnis")<sup>56</sup> that cannot be disregarded for the purposes of registration upon showing of secondary meaning as the case may well be with descriptive terms.<sup>57</sup>

## **5. Does s. 3(2)(b) TMA 1994 exclude shapes from registration that are associated with a manufacturing method?**

In *Nestlé* both the CJEU and Advocate General agreed that the second indent of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) is solely concerned with the manner in which the goods function if that provision is to be interpreted literally. The wording of the provision "refers expressly to the

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<sup>52</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63, Opinion of Advocate General Mengozzi at [55].

<sup>53</sup> *Id.*

<sup>54</sup> *Philips* (Case C-299/99) [2002] E.C.R. I-5475; [2002] E.T.M.R. 81 at [80].

<sup>55</sup> J. Phillips, "Trade Mark Law and the Need to Keep Free - Intellectual Property Monopolies Have Their Limits" IIC 2005, 389.

<sup>56</sup> H. Eichmann, "Die dreidimensionale Marke im Verfahren vor dem DPA und dem BPatG" GRUR 1995, 184, 185.

<sup>57</sup> *Windsurfing Chiemsee* (Joined Cases C-108/97 and C-109/97), [1999] ECR I-02779, [1999] ETMR 585 at [54]. In this case, the CJEU rejected the traditional German approach towards affirming a "need to keep free." German courts used to affirm the existence of a "Freihaltebedürfnis" only when such need was real, current or serious. In contrast, the CJEU held that descriptive terms must be excluded from protection whenever the need to keep them available for competitors to use is likely to arise in the future.

shape of goods which is necessary to obtain a ‘technical result’ without mentioning the process for the manufacturing of those goods.”<sup>58</sup> In their view, this omission and the fact that the goods precede the technical result indicate that the norm specifies only the technical result attributed to the shape of the goods as being of legal relevance whereas the contribution of the manufacturing process to that technical result is immaterial.<sup>59</sup>

From a teleological perspective, the Advocate General noted that the literal application of the norm would obviously contravene its own purpose of protecting competitors’ freedom to adopt the technical solution of their choice when incorporating a given utilitarian function in their products.<sup>60</sup> As he put it, a manufacturing process amounts to no more than applying technical teachings with the objective of producing a useful article.<sup>61</sup> The Advocate General’s opinion also suggests that the interpretation of the preliminary obstacle could not logically ignore the manner in which the trademarked goods are manufactured, where the utilitarian purpose of the article can only be obtained through a specific manufacturing process, as was the case in *Nestlé*.<sup>62</sup>

In contrast, the CJEU opined that its own argument resting upon the letter of law is also supported by the teleology of the relevant norm. As already expounded by the court in *Philips*,<sup>63</sup> *Lego*<sup>64</sup> and *Hauck*,<sup>65</sup> the technical solutions and functional characteristics that should not be monopolized through the conferral of trade mark rights in product shapes are those that consumers are likely to seek in competitors’ products. Hence, according to the court’s argument, only the signs serving the utilitarian purpose of the relevant goods actually fall within the ambit of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive).<sup>66</sup> The CJEU also suggested that the manufacturing process is not important from the consumer’s perspective in this context.<sup>67</sup> To further corroborate those arguments, the court noted that the manufacturing method is also irrelevant to the assessment of a shape’s essential characteristics, the step preparing the ground for the actual assessment of a sign’s functionality.<sup>68</sup>

In the light of the anticompetitive effects likely to accrue from the possibility of registering a sign associated with a given manufacturing process as a trade mark, it is submitted that the Advocate General’s views on the teleological argument are correct. Where the manufacturing process associated with the shape constitutes the only way for obtaining a technical result, competitors would not

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<sup>58</sup> *Nestlé* (Case C-215/14), ECLI:EU:C:2015:604; [2015] E.T.M.R. 50 at [53]-[54]; *Nestlé* (Case C-215/14) ECLI:EU:C:2015:395, Opinion of Advocate General Wathelet at [73]-[74].

<sup>59</sup> *Id.*

<sup>60</sup> *Nestlé* (Case C-215/14) ECLI:EU:C:2015:395, Opinion of Advocate General Wathelet at [75]-[77].

<sup>61</sup> *Id.* at [77].

<sup>62</sup> *Nestlé* (Case C-215/14) ECLI:EU:C:2015:395, Opinion of Advocate General Wathelet at [75].

<sup>63</sup> *Philips* (Case C-299/99) [2002] E.C.R. I-5475; [2002] E.T.M.R. 81 at [79].

<sup>64</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [43].

<sup>65</sup> *Hauck* (Case C-205/13) EU:C:2014:2233; [2014] E.T.M.R. 60 at [18].

<sup>66</sup> *Nestlé* (Case C-215/14), ECLI:EU:C:2015:604; [2015] E.T.M.R. 50 at [55].

<sup>67</sup> *Id.*

<sup>68</sup> *Id.* at [56].

be able to incorporate the respective utilitarian function into their products, and the trade mark proprietor would effectively monopolize a specific bundle of product characteristics. In those cases where such a manufacturing process is the superior method for producing the relevant goods, competitors' freedom to adopt the technical solution of their choice would be severely limited. Given that the preliminary obstacle seeks to ensure the availability of unpatented technical solutions in absolute terms, the teleological purpose of the norm requires the exclusion of any shape from trade mark protection that emerges as a necessary consequence of a given manufacturing method, irrespective of the existence of alternative processes capable of producing the same product. In view of the aforementioned considerations, the shape of the "Kit-Kat" chocolate bar should not be registered as it is closely associated with the most common and preferable method of manufacturing chocolate-covered wafer biscuits. Competitors' freedom to use the underlying manufacturing rules would be unduly restricted since the adoption of any other shape would complicate the manufacturing process and perhaps make it more costly.<sup>69</sup> Trade mark rights should not interfere with the productive intent of competitors, who might wish to choose a particular manufacturing method. The close association of a shape or other product feature with a particular process of manufacture or with certain productive efficiencies indicates that competitors would eventually consider using the mark for mechanical reasons.<sup>70</sup>

An additional argument against a distinction in the legal treatment under s. 3(2)(b) TMA 1994 of the features that actually serve the utilitarian purpose of the article vis-à-vis those that simply incorporate technical rules of manufacture can be derived from the policy consideration of partitioning the regulatory field of the various IP regimes. Both types of *technical contributions* constitute resources whose exclusive use is regulated by patent law in anticipation of returns on innovation. Since the teleology of the preliminary obstacle requires a clear determination<sup>71</sup> of the subject matter that may not be protected as a trade mark to secure the integrity of the patent system,<sup>72</sup> it would be irrational to

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<sup>69</sup> Trade mark application No. 2552692 by Société Des Produits Nestlé S.A. to register a trade mark in Class 30 and opposition No. 101495 by Cadbury Ltd, at [80].

<sup>70</sup> At this point one could draw an analogy to *Philips* (Case C-299/99) [2002] E.C.R. I-5475; [2002] E.T.M.R. 81 at [80]: "As Article 3(1)(e) of the Directive pursues an aim which is in the public interest, namely that a shape whose essential characteristics perform a technical function and were *chosen to fulfil* that function may be freely used by all, that provision prevents such signs and indications from being reserved to one undertaking alone because they have been registered as trade marks [...]" (Emphasis added). The CJEU clearly indicated that the provision seeks to ensure that trade mark rights would not interfere with the productive intent of competitors, who might wish to choose a shape or other feature as the instrument for fulfilling the technical function of their own goods. The existence of a causal tie between a sign and the product's technical result indicates that competitors would eventually consider the option of using that sign with the objective of obtaining a technical result.

<sup>71</sup> By excluding a particular type of sign solely attributed to attaining a technical result so as to avoid the perpetuation of patents, the CJEU effectively creates an area where patents and trade marks may not co-exist. See also R. Tomkowicz, *Intellectual Property Overlaps* 73 (2012); Cf. E. Derclaye & M. Leistner, *Intellectual Property Overlaps – A European Perspective*, 87 (arguing that the CJEU rulings in *Philips* and *Lego* have in effect "almost completely" ruled out the subject matter overlap between the two IP regimes).

<sup>72</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63, Opinion of Advocate General Mengozzi at [55].

maintain that the same concern does not apply to a single category of subject matter eligible for patent protection that is so broad and so fundamental as the one related to manufacturing processes.

For these reasons, the teleological argument provided by the CJEU to corroborate its argument from the letter of the provision for its negative answer, namely that the public interest underlying Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) only refers to technical solutions, which a user is likely to seek in the goods of competitors and not to technical rules of manufacture,<sup>73</sup> does not stand up to scrutiny. In the court's view, the manner in which the goods function is crucial from the consumer's perspective while the manner in which the goods are manufactured is not deemed important.<sup>74</sup> Again, the CJEU's argument is unconvincing. The manufacturing process is not an aspect of the products that is inherently immaterial to the consumers. Rather, in many instances, it can be seen to influence the consumers' transactional decisions.<sup>75</sup>

Citing *Philips*, the CJEU put forward the additional argument that the manufacturing method is not decisive in the context of assessing the essential functional characteristics of the shape of the relevant goods.<sup>76</sup> Yet, even this argument is also unconvincing because it fails to capture the nature of that assessment. We determine the essential characteristics of shapes with the objective of preventing a specific abuse of the trade mark system. In *Philips*, the CJEU did not consider the potential of registered trade mark rights in product design to impede the practice of unpatented manufacturing processes. *Philips* was instead a case concerned with the monopolization of technical solutions adopted to give effect to the utilitarian purpose of trademarked goods. One cannot therefore logically derive any argument from the CJEU's statements in *Philips* on the determination of the essential characteristics that could support the court's conclusion in *Nestlé*, which stressed that the term technical result should be taken to refer to the manner in which the relevant goods function as opposed to the manner in which those goods are manufactured. Once we accept, in view of the aforementioned teleological arguments, that rights in registered trade marks should not stifle competition by inhibiting the deployment of manufacturing processes which already form part of the public domain, the determination of a shape's essential characteristics will be carried out in the light of that concern. In other words, the assessment of the shape's essential characteristics is ancillary to the type of abuse that should be avoided.

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<sup>73</sup> *Nestlé* (Case C-215/14) ECLI:EU:C:2015:395 at [55].

<sup>74</sup> *Id.*

<sup>75</sup> *Cf.* Article 6(1) Directive 2005/29/EC of the European Parliament and of the Council of 11 May 2005 concerning unfair business-to-consumer commercial practices in the internal market and amending Council Directive 84/450/EEC, Directives 97/7/EC, 98/27/EC and 2002/65/EC of the European Parliament and of the Council and Regulation (EC) No 2006/2004 of the European Parliament and of the Council ('Unfair Commercial Practices Directive'). The method of manufacture is referred to in Article 6(1)(b) UCPD as one of the elements in respect to which the consumer may be deceived and, as a consequence thereof, take a transactional decision that he would not have taken otherwise.

<sup>76</sup> *Nestlé* (Case C215/14) ECLI:EU:C:2015:395 at [56].

The CJEU's opinion in *Nestlé* leads to a profound evaluative contradiction. The emerging rule protects the absolute freedom of competitors to avail themselves of any technical solution capable of producing a demanded utility. At the same time, it refuses to protect the same interest with regard to technical teachings for manufacturing goods without there being any competitive justification for distinguishing between the two types of technical solutions in this particular context. Depriving competitors of a manufacturing method might in a given case constitute a greater impediment to their market efforts than the inability to use a technical solution related to the product's utilitarian function where the demanded utility can be obtained through a multitude of technical configurations with the industry relying on few preferred manufacturing methods. The law would then fail to protect competitors against a mighty trade obstacle while protecting them against a type of restraint that is less severe. Thus, if trade mark theory suggests that purely technical shapes should not be protected as trade marks without any qualification whatsoever, then it should be inferred that a rule barring trade mark protection for product designs associated with a given manufacturing process is equally necessary for a consistent and properly functioning trade mark system.

The idea that trade mark law provisions should address possible impediments to the free exercise of manufacturing methods resulting from trade mark enforcement is not foreign to trade mark law theory. US trade mark law explicitly takes into account the effect of trade dress protection on the practice of unpatented manufacturing processes within the context of functionality analysis, as we shall see.

Irrespective of the chosen wording, the European legislator did not have in mind the case of a shape dictated by a manufacturing process at the time the Directive was adopted,<sup>77</sup> though it is logical to assume that the legislator would have strongly disregarded the idea of trade marks contravening the freedom of competitors to exercise unpatented manufacturing processes. It is important to stress that, with the introduction of the new Article 4(1)(e) of the 2015 Trade Mark Directive, the European legislator has indicated his intention of preventing the establishment of trade mark rights in technical solutions, irrespective of the type of sign in which these are manifested.

To get a clear picture of the legislator's intentions, one needs to take a retrospective look at *Dyson*.<sup>78</sup> There, the applicant essentially sought to obtain registered trade mark rights in the concept of a transparent bin to be used in conjunction with electric hoovers by claiming a mark, which consisted of a transparent bin or collection chamber forming part of the external surface of a vacuum cleaner. The mark was represented through images of electric hoovers with a transparent bin as an example. According to the CJEU, the sign

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<sup>77</sup> This view is supported by the drafting history. The relevant discussion revolved around the question of whether the absolute ground for refusal should be applicable when the shape at issue constitutes simply one of the plentiful means available to achieve a technical result. See, for instance, the Summary of Conclusions of the 42<sup>nd</sup> meeting of the Working Party on Intellectual Property (Trade Mark) on the 23<sup>rd</sup> and 24<sup>th</sup> of September 1986, document No. 9400/86.

<sup>78</sup> *Dyson Ltd v Registrar of Trade Marks* (Case C-321/03) [2007] E.C.R. I-687; [2007] E.T.M.R. 34.

requirement was not fulfilled since the idea of a transparent bin was a broad concept encompassing all the conceivable shapes of a transparent bin or collection chamber forming part of the external surface of a vacuum cleaner.<sup>79</sup> In his opinion, while affirming that the mark was not protectable on various grounds, Advocate General *Léger* placed emphasis on the fact that the exclusive use of the sign would lead to the monopolization of a set of functional characteristics. Indeed, as he noted, transparent bins relieved consumers from the inconvenience of regularly changing cleaner bags and filters. They also allow the user to be aware at all times of how full the bin is. For some consumers a bagless vacuum cleaner with a bin made from clear plastic might even be desirable as a product due to its aesthetic appeal. The Advocate General opined that the sign should be excluded on the grounds prescribed in the second indent of Article 3(1)(e) TMD in accordance with the norm's rationale to prevent the monopolization of functional characteristics, despite the fact that the mark under assessment was not a shape mark.<sup>80</sup>

It is obvious that the European legislator did not consider the scenario of dealing with anything less than the shape as a whole, i.e. with a product feature or a product characteristic that implements or contributes to the product's functional purpose. It was difficult, if not impossible, to reconcile a teleological interpretation with the wording of the provision as it then stood. Article 4(1)(e) of the 2015 Trade Mark Directive came to cover this gap in the system of the absolute grounds for refusal.<sup>81</sup> For the legislator it must have been much more difficult to predict the constellation of trade mark rights interfering with the practicing of technical rules related to manufacture. This can be attributed to the fact that it is hard to conceive an overlap between patents and trade marks in subject matter when it comes to manufacturing processes. Constituting a set of instructions, the latter are not likely to satisfy the requirement of a sign under s. 1(1) TMA 1994 since they amount to abstract concepts and ideas.<sup>82</sup> Patents and trade marks overlap in respect to some product configuration or feature. What creates the overlap between the two systems is actually the expression of the idea, i.e. the technical rule in a shape for which registration as a trade mark may be sought by an economic operator.<sup>83</sup> Since the legislator has clearly indicated that the trade mark system would not lend itself to the aspirations of applicants to establish potentially perpetual rights in technical solutions, there is no reason why Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) should be read in a manner that runs contrary to that suggestion. To sum up, precisely because the European legislator did not consider the problem of signs that constitute expressions of a manufacturing method, the wording of

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<sup>79</sup> *Id.* at [40].

<sup>80</sup> *Dyson* (Case C-321/03) [2007] E.C.R. I-687; [2007] E.T.M.R. 34, Opinion of the Advocate General at [88]-[90].

<sup>81</sup> Max Planck Institute for Intellectual Property and Competition Law, Munich (now MPI for Competition and Innovation), *Study on the overall functioning of the European Trade Mark System* 71-72 (2011) available at <http://bookshop.europa.eu/en/study-on-the-overall-functioning-of-the-european-trade-mark-system-pbKM3113705/>

<sup>82</sup> *Dyson* (Case C-321/03) [2007] E.C.R. I-687; [2007] E.T.M.R. 34 at [40]; E. Derclaye & M. Leistner, *Intellectual Property Overlaps – A European Perspective*, 86.

<sup>83</sup> E. Derclaye & M. Leistner, *Intellectual Property Overlaps – A European Perspective*, 86.



the new rules does not provide any clear hint as to whether Article 4(1)(e)(ii) of the 2015 Trade Mark Directive precludes the registration of those marks.

The norm simply refers to a technical result without explicitly specifying the technical effect of the sign as being the legally significant result. This suggests that in the context of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive), the term “technical result” may include different types of technical results including manufacturing efficiencies.<sup>84</sup> Nevertheless, a purposive interpretation excluding shapes from trade mark protection that are associated with a specific manufacturing method is, apart from being teleologically justified, indeed within the textual limits of the provision.<sup>85</sup> Such a shape can be characterised as a technological or engineering artefact, a clear-cut manifestation of technological knowledge.<sup>86</sup> As a knowledge artefact, the shape conveys or holds usable representations of knowledge. While that knowledge is necessary to achieve a technical result, the performance of a manufacturing process with the objective of marketing an item of commerce, its use might be blocked or fettered if an economic operator manages to obtain trade mark rights in the technological artefact. In this sense, the shape associated with a manufacturing process is necessary to obtain a technical result. The literal interpretation provided by the CJEU and the Advocate General relies heavily on deductive reasoning, drawing upon the chronological order starting from the process of manufacturing the product and ending with the performance of the product’s utilitarian function. Therefore, it ignores the possibility of alternative interpretations, which would lie within the textual limits of the provision and which might be preferable in the light of teleological considerations. The recourse of the CJEU to that logical argument indicates that the norm is at least to some extent vague. Thus, the court should have exercised its discretion to

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<sup>84</sup> A. Firth, E. Gredley & S.M. Maniatis, *Shapes as trade marks: Public Policy, Functional Considerations and Consumer Perception* [2001] E.I.P.R. 86, 93 (drawing an analogy to the US functionality doctrine, which excludes shapes from trade dress protection that have an effect on the cost of the trademarked good. The doctrine of functionality will be discussed below in more detail).

<sup>85</sup> The CJEU’s jurisprudence is said to have adopted a more purpose- and system-oriented approach to interpretation, which finds its limits in the clear text of the norm. For a general discussion see T. Koopmans, “The theory of interpretation and the Court of Justice” in D. O’Keeffe & A. Bavasso (eds.) *Judicial review in European Union law: Liber Amicorum in honour of Lord Slynn of Hadley* 45 (2000). In *Philips*, for instance, where the CJEU had to rule on the proper interpretation of the term “necessary” in Article 3(1)(e) TMD, there were two alternative interpretations possible, both of which were compatible with the norm’s wording. In particular, a shape could be deemed necessary for obtaining a technical result when it is the only one that could perform the product’s function (the relationship between the shape and the product is mandatory). Another possibility was to adopt a broader interpretation whereby a shape would only be excluded from protection if its relationship to the trademarked good is causal in the sense that the shape is the reason why the product works. Taking into account the public policy considerations underlying the preliminary obstacle, the court opted for the latter option. See L. Bently, “Recent developments in European trade marks: The jurisprudence of the ECJ since 1 January 2002” 2003 (22) *Yearbook of European Law*, 583, 592-93. On the principles governing the interpretation of absolute grounds for refusal see generally A. v. Mühlendahl, D. Botis, S. Maniatis & I. Wiseman, *Trade mark law in Europe*, 101-03 (2016).

<sup>86</sup> See generally, P.-P. Verbeek & P.E. Vermaas, “Technological artifacts” in J.K.B. Olsen, SA Pedersen & V.F. Hendricks (eds.) *A Companion to the Philosophy of Technology*, Blackwell Companions to Philosophy 165-171 (2009).

consider teleological arguments in a manner proportionate to the degree of the norm's vagueness.<sup>87</sup> The wording of the provision referring to a shape or product characteristic that is necessary to obtain a technical result is broad enough to encompass situations where there is some type of interrelationship between a sign and a technical result. Rightfully, Arnold J requested guidance from the CJEU after considering that the letter of the provision was open to interpretation.

Further considerations militate in favour of the interpretative approach suggested here. Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) can be read as regulating the overlap between patents and trade marks where the point of reference, the common subject matter, is a technological artefact. Patent law does not adopt a formalistic approach to decide whether a given invention is patentable or not in order to implement its policies. Instead, it examines the subject matter claimed to ascertain whether the applicant's contribution has a technical effect.<sup>88</sup> In a similar vein, the application of s. 3(2)(b) TMA 1994 should entail a detailed analysis of the technical teachings, which an eventual registration of a technical shape might impermissibly reserve for the trade mark proprietor.<sup>89</sup>

If Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) is interpreted as precluding the registration of shapes deemed necessary to obtain a technical result, not only with regard to the manner in which the goods function but also with regard to the manner in which they are manufactured, there is indeed the danger of the legal test becoming over-inclusive. This would exclude too many signs from registration and undermine the precompetitive potential of those three-dimensional trademarks that may indeed contribute to an increase in market transparency. Just because a given subject matter such as an aesthetic feature, for which registration as a trade mark is being sought, might have been produced in conformity with some technical rules of manufacture, this should not mean that the sign must be excluded from registration on the grounds of s. 3(2)(b) TMA 1994.<sup>90</sup> Taking those considerations into account, the General Court has held that the Legoman's shape constitutes a protectable trade mark despite the technical considerations underlying its interlocking members, which affect both in the manufacture and use of that product. After determining the function of the shape as being that of a manikin, the court ruled that the second

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<sup>87</sup> See generally Gunnar Beck, *The legal reasoning of the Court of Justice of the EU* (2012) 189.

<sup>88</sup> *Aerotel Ltd v Telco Holdings Ltd/Macrossan's Patent Application (No.0314464.9)* [2006] EWCA Civ 1371; [2007] R.P.C. 7.

<sup>89</sup> The CJEU has clearly indicated that a detailed technical examination of the products' function must be carried out to give effect to the preliminary obstacle's purpose. See *Pi-Design AG and Others v Yoshida Metal Industry Co. Ltd and Office for Harmonisation in the Internal Market (Trade Marks and Designs) (OHIM)*, (Joined Cases C-337/12 P to C-340/12 P) ECLI:EU:C:2014:129 at [61]-[68]; *Simba Toys GmbH & Co. KG v European Union Intellectual Property Office (EUIPO)/Seven Towns Ltd*, (Case C-30/15 P) ECLI:EU:C:2016:849 at [46]-[47]. For a short comment see Alberto Bellan, "It is OK to 'reverse engineer' simple trade marks, the CJEU says", *JIPLP* (2014) 9 (9), 703-704. Such meticulous analysis is all the more necessary for shapes that incorporate technical rules of manufacture. In those cases, the competent authorities should be particularly vigilant, since the anti-competitive effects of the registration would be difficult to discern.

<sup>90</sup> *Cf.* BPatG, Beschluss vom 9. 5. 2007 - 32 W (pat) 156/04, GRUR 2008, 420, 422 ROCHER-Kugel.

indent of the preliminary obstacle was not applicable because the effect resulting from the shape at issue was not technical in nature.<sup>91</sup>

Perhaps it was also because of those considerations that the CJEU confined the field of application of the second indent to those shapes that are causally related to the utilitarian function of the relevant goods. Concerns about the over-inclusiveness of the norm are valid, but they do not exclude the possibility of a teleological interpretation, whereby the manner in which the goods are manufactured becomes relevant whenever the registration of a given sign as a trade mark would create impediments to the execution of a given manufacturing process. Hence, even an aesthetically appealing design or product feature should be held functional within the meaning of s. 3(2)(b) TMA 1994 if it emerges as the necessary result of a certain manufacturing method. In view of this, it should be noted that the CJEU has interpreted the phrase “necessary to obtain a technical result” as requiring a causal relationship between the shape and the utilitarian function of the goods while seeking to implement the purpose of the provision, which is to preclude the registration only of those signs incorporating technical solutions without categorically excluding utilitarian design from trade mark protection.<sup>92</sup> In regard to manufacturing processes, the requirement that the registration should be precluded only if the sign emerges as the necessary result of that process or is associated with particular manufacturing efficiencies ensures that it is a technical solution and not a sign capable of distinguishing the goods or services of one undertaking from those of other undertakings that is excluded from registration.

These observations bring us back to the systematic interpretation of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive). Within the system of the preliminary obstacle, it is this provision that serves the public interest against the monopolization of technical solutions as an independent and separate norm.<sup>93</sup> Unless the monopolization of technical solutions pertaining to rules of technical manufacture is subsumed under the second indent, the preliminary obstacle could not fulfill its purpose.

What is more, it is crucial to plug loopholes in the application of s. 3(2)(b) TMA 1994 that would encourage attempts to monopolize functional characteristics of products through trade mark registrations.<sup>94</sup> As the latest decisions in the “KitKat” saga suggest,<sup>95</sup> it may indeed be difficult to establish inherent distinctiveness or even secondary meaning with regard to product shapes; yet

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<sup>91</sup> *Best-Lock (Europe) Ltd v Office for Harmonisation in the Internal Market (Trade Marks and Designs) (OHIM)/Lego Juris A/S*, (Case T-396/14) ECLI:EU:T:2015:379 at [22].

<sup>92</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [48].

<sup>93</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63, Opinion of Advocate General Mengozzi at [55].

<sup>94</sup> On this problem see A. Kur, “Strategic Branding: Does Trademark Law Provide for Sufficient Self Help and Self Healing Forces?” in I. Govaere & H. Ullrich (Eds.) *Intellectual Property, Market Power and the Public Interest* 191 (2008).

<sup>95</sup> *Nestlé*, (Case C-215/14) ECLI:EU:C:2015:395, at [67]; *Societe Des Produits Nestle SA v Cadbury UK Ltd* [2017] EWCA Civ 358 (17 May 2017); *Mondelez UK Holdings & Services Ltd v EUIPO* (Case T-112/13) EU:T:2016:735; [2017] E.T.M.R. 13 (an applicant for an EUTM must establish that the mark has acquired distinctive character throughout the European Union).

the theoretical possibility of establishing such monopolistic positions makes the registration worthy of pursuing. Thus, the teleological interpretation advocated here reflects the guidance of *Libertel* for a serious, stringent and thorough examination of the sign in the light of the public interest at the registration stage.<sup>96</sup>

In conclusion, neither the wording nor the teleology of Article 3(1)(e)(ii) TMD (Article 4(1)(e)(ii) of the 2015 Trade Mark Directive) should be taken to suggest that the absolute ground for refusal is solely concerned with the manner that the goods function without considering their manufacturing method.

## 6. The doctrine of functionality in US trade mark law

US trade mark law protects trade dress, which encompasses not only the shape but also the overall appearance of products or the total image of services in its capacity of designating commercial source.<sup>97</sup> A trade dress claim may be raised only with regard to particular elements of a product shape rather than the totality of its features.<sup>98</sup> Trade dress protection raises concerns about the creation of overly broad monopolies that would give rise to stealth patents and interfere with competitors' ability to compete effectively,<sup>99</sup> which have been traditionally addressed by the functionality doctrine.<sup>100</sup> Functionality is an offspring of the common law courts<sup>101</sup> and had always been a manifestation of their disregard of monopolies. It found its way into statutory law with the enactment of the Lanham Act back in 1947.<sup>102</sup> The statute, however, says nothing on the exact normative content of functionality. As a result, the role of the courts in developing the doctrine has remained instrumental ever since.

Over a long period of time functionality rested on competitive need.<sup>103</sup> Accordingly, the "crux of the matter" had been whether a given trade dress is necessary for other economic operators to compete in the relevant market. This principle was reiterated and summarized in *Morton Norwich*.<sup>104</sup> At issue was the

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<sup>96</sup> *Libertel Groep BV v Benelux-Merkenbureau* (Case C-104/01) [2003] E.C.R. I-3793; [2003] E.T.M.R. 63 at [59].

<sup>97</sup> L. Altman & M. Pollack, *Callmann on unfair competition, trademarks and monopolies* (4th ed., 1997-), § 19:1.

<sup>98</sup> J.T. McCarthy, *McCarthy on trademarks and unfair competition* (4th ed., 1996-), § 8:1.

<sup>99</sup> For a sceptical view on trade dress protection, see G.S. Lunney Jr, "The trade dress emperor's new clothes: Why trade dress does not belong on the principal register" 51 *Hastings L.J.* 1131 (2000).

<sup>100</sup> T.F. Cotter, "Is this conflict really necessary?: Resolving an ostensible conflict between patent law and federal trademark law" 3 *Marq. Intell. Prop. L. Rev.* 25, 64 (1999) (stressing that "the functionality doctrine, if properly applied, obviates any real conflict between patent and federal trademark law").

<sup>101</sup> S. Mohr & G. Mitchell, *Functionality of trade dress: A review and analysis of U.S. case law* 7-8 (3<sup>rd</sup> ed. 1997).

<sup>102</sup> Functionality is mentioned in: Sec. 2(e) Lanham Act as a statutory bar to registration; Sec. 13 Lanham Act as a ground for opposition; Sec. 14 Lanham Act as a ground for cancellation; Sec. 33(b)(8) Lanham Act as a defense to a claim based on infringement of a registered mark, and; Sec. 43(a)(3) Lanham Act as a positive element of an unfair competition claim.

<sup>103</sup> See generally M.A. Thurmon, "The Rise and Fall of Trademark Law's Functionality Doctrine" 56 *Fla. L. Rev.* 243 (2004).

<sup>104</sup> *In re Morton-Norwich Products, Inc.*, 671 F.2d 1332 (C.C.P.A. 1982).

registrability of a spray bottle whose configuration had been disclosed partly in a utility patent and partly in a design patent. The United States Court of Customs and Patent Appeals (CCPA), which back then had jurisdiction over appeals against decisions rendered by the United States Patent and Trademark Office (USPTO), held that the applicant's trade dress was not *de jure* functional. In the court's view, competitors are not entitled to copy slavishly items that are no longer protectable by the patent system but only have a right to compete effectively.<sup>105</sup> As third parties did not need that particular bottle configuration in order to compete in the relevant market, functionality would not prevent the applicant from protecting his trade dress as a registered trade mark.<sup>106</sup>

That legal test had the merit of being permissive and, as such, it allowed for a wide overlap between trade dress and patent rights. By creating space for trade dress protection, the "competitive need" test sought to secure all those additional benefits to market transparency that accrue as a result of protecting non-conventional methods of source designation while avoiding unduly restrictions to competition. On the other hand, this particular version of the functionality doctrine was problematic for other reasons, mainly because it failed to consider significant aspects related to patent policy. Under the "competitive need" test a purely technical feature incorporating a technical solution could be deemed protectable if the same utilitarian function could be obtained by a multitude of equally effective alternative designs. Furthermore, a controversy arose as to whether the prior disclosure of a configuration in an expired patent should have an impact on the legal assessment.

It was almost 20 years after *Morton Norwich* that the US Supreme Court took the opportunity to shed some light on those issues. In the case of *Traffix Devices*,<sup>107</sup> the trade dress claim extended to a dual spring design, which was assembled at the lower part of portable road signs to keep them in an upright position even during windy weather. As the court noted, the dual spring design did not constitute an arbitrary flourish but the reason why the device worked.<sup>108</sup> Once it is ascertained that the sign is technical in this sense and therefore constitutes a technical solution, competitors need not explore whether other spring juxtapositions might be used.<sup>109</sup> The court also emphasized that the Lanham Act is neither an instrument meant for rewarding innovators nor does it provide incentives to invest in educating the public to associate a technical feature with a single commercial source.<sup>110</sup> Any disclosure of the feature in an expired patent is not determinative of the dispute's outcome but constitutes strong evidence that trade dress is *de jure* functional.<sup>111</sup> Clarifying the law, the court affirmed its own definition of the doctrine provided in *Inwood*, according to which "a product feature is functional if it is essential to the use or purpose of the article of if it

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<sup>105</sup> *Id.* at 1339.

<sup>106</sup> *Id.* at 1342-43.

<sup>107</sup> *Traffix Devices, Inc. v. Marketing Displays, Inc.*, 532 U.S. 23 (2001).

<sup>108</sup> *Id.* at

<sup>109</sup> *Id.* at 33.

<sup>110</sup> *Id.* at 34-35.

<sup>111</sup> *Id.* at 29-30.

affects the cost or quality of the article.”<sup>112</sup> Accordingly, whenever a design or a product feature bears upon the cost of manufacture or improves the utilitarian performance of the article, trade mark protection will be excluded on the grounds of functionality.<sup>113</sup> In both instances, trade dress protection would interfere with the freedom of competitors to deploy mechanical teachings. On the other hand, as the US Supreme Court noted *per dictum*, trade dress reflecting aesthetic rather than utilitarian considerations must be assessed on the basis of competitive necessity.<sup>114</sup> Overall, the functionality doctrine reflects a policy decision about the optimal levels of monopoly and competition in the market.<sup>115</sup>

## 7. Does the functionality doctrine of US trade mark law exclude signs driven by manufacturing methods from protection?

Utilitarian functionality excludes from trade mark protection any trade dress that is essential to the use or purpose of the article in the sense that the sign is dictated by the use or the function of the trademarked good. However, the doctrine is not only concerned with mechanical teachings related to the utilitarian purpose of an article but equally applies to technical rules affecting its quality<sup>116</sup> and cost. The manner in which the goods are manufactured plays an important role in assessing functionality. If a product design or feature results from a comparatively simple, inexpensive or superior method of manufacture, this is an indication that trade dress has been adopted in view of utilitarian considerations associated with the cost or the quality of the article.<sup>117</sup> Apparently, utilitarian functionality is concerned with the manner in which the trademarked good is manufactured while seeking to ensure that competitors would not have to circumvent any unpatented technical teachings to market their own products.<sup>118</sup> The US approach stands in sharp contrast with the analysis of the CJEU in *Nestlé*.

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<sup>112</sup> *Inwood Laboratories v. Ives Laboratories*, 456 U.S. 844, 850, n.10 (1982).

<sup>113</sup> *Christian Louboutin S.A. v. Yves Saint Laurent America Inc.*, 696 F.3d 206, 220 (2d Cir. 2012).

<sup>114</sup> *Traffix* at 33.

<sup>115</sup> T. Cotter, “The precompetitive interest in intellectual property law” 48 WMLR 483 (2006).

<sup>116</sup> *In re Rolf Dietrich*, 91 USPQ2d 1622 (TTAB 2009).

<sup>117</sup> The evidentiary assessment of functionality relies heavily on four factors: a) the existence of a utility patent disclosing the utilitarian advantages of the design; b) the existence of advertising material where the applicant is touting the utilitarian advantages of the design; c) the availability of functionally equivalent designs; and d) facts indicating that the design results in a comparatively simple or cheap method of manufacturing the product. According to the prevailing view, this indicative list of factors relevant to the functionality inquiry provided in *Morton-Norwich* has not been rendered immaterial by the US Supreme Court’s opinion in *Traffix*. Disagreements between courts and commentators revolve around the issue of whether the existence of alternative designs should be taken into account when assessing “mechanical functionality” after *Traffix*. On this particular issue see generally J.T. McCarthy, *McCarthy on trademarks*, § 7:75 and Altman & Pollack, *Callmann on unfair competition*, § 19:24.

<sup>118</sup> See, for instance, *Pope Automatic Merchandising Co. et al v. McCrum-Howell Co.*, 191 F. 979, 981 (7th Cir. 1911) (rejecting an unfair competition claim with the argument that the imitated design was “the most efficient and most economically manufactured form into which the mechanical combination can probably be embodied.”)

In this context, it is worthwhile to consider *In re Pollack Steel Co.*<sup>119</sup> The applicant sought to obtain a trade mark registration for a coating of any colour capable of reflecting a directed beam of artificial light as applied to steel fence posts. In particular, the coating would cover a few inches of the top of a T-shaped post. When the dispute reached the CCPA, functionality was firstly assessed from the perspective of the mark's contribution towards the product's utilitarian function in terms of competitive necessity. According to the applicant's argument, a mark consisting of a solid coating in the design comprised of a band at the top of a fence post is non-functional because competitors have the option of adopting special designs such as a series of horizontal, vertical or inclined stripes for their own reflective coatings. Delivering an analysis compatible with the subsequent ruling of the Supreme Court in *TrafFix* and its contemporary application, the court held that the mark was functional because its registration would inhibit the practice of a simple method for applying a reflective coating to a metal post, which required the user to suspend the post top-downwards and dip it into the coating liquid.<sup>120</sup> As the court indicated, the applicant should not succeed in obtaining a "perpetual monopoly on the simplest and cheapest use of a simple process of applying a *functional reflective coating*" to a metal fence post (emphasis added).<sup>121</sup> In practice, an affirmation of functionality relying on evidence suggesting that a given trade dress promotes the ease and economy of manufacture poses the question whether requiring competitors to use alternative manufacturing methods is tantamount to an unreasonable imposition.<sup>122</sup>

It is submitted that the functionality doctrine should bar trade dress protection for product design or features associated with a specific manufacturing process irrespective of whether the cost of production is thereby affected. This proposition is supported by case law analysis and the literal interpretation of the statutory term "functional."

Long before *TrafFix*, other decisions have scrutinized the relationship between trade dress protection and patent law in an attempt to develop workable criteria for determining what kind of items may not be subjected to trade mark protection because competitors should be entitled to copy them in the absence of patent protection. Few of those rulings have pointed towards the existence of an

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<sup>119</sup> *In re Pollack Steel Co.*, 314 F.2d 566, 570 (C.C.P.A. 1963).

<sup>120</sup> *Id.* at 570.

<sup>121</sup> *Id.*

<sup>122</sup> According to some scholars this must be taken to suggest that those decisions relied on a competitive need standard. See Thurmon, "The Rise and Fall of Trademark Law's Functionality Doctrine" 56 Fla. L. Rev. 243, 277-78 (2004) and M.M. Wong, "The aesthetic functionality doctrine and the law of trade-dress protection" 83 Cornell L. Rev. 1116, 1148-49 (1998). See also *J.R. Clark Co. v. Murray Metal Prods. Co.*, 219 F.2d 313, 320 (5th Cir. 1955) (holding that the configuration of a metal ironing table was functional because it was the "result of a well known manufacturing process.") At any rate, competitive need is a matter of degree. One could refer to the circumstances under which the *TrafFix* rule would exclude trade dress protection as instances of competitive need in the broader sense, meaning that competitors do not have to explore alternative configurations once a given design is found functional, even though the design is actually not essential to traders for competing in the relevant market.

independent rule against the protection of trade dress resulting from a specific method of manufacture.<sup>123</sup>

*In re Shakespeare Co.*<sup>124</sup> is a good starting point. A company marketing fishing rods sought to obtain registered trade mark rights in “a continuous spiral marking formed in relief on the surface of and extending for substantially the full length of [its] rod[s].” The spiral marking resulted as an inevitable result of the manufacturing process, which left its mark on the rods.

The background process patent taught how to make high-strength lightweight shafts or rod-like materials in variable sizes for use as parts of various products including fishing rods, ski poles and boat spars (the “Howald-process”).<sup>125</sup> Prior to the invention, the production of rod-like materials having great strength and resilience in proportion to their weight was attempted by the use of bamboo or other light, stiff wood as feedstock. Product durability was unsatisfactory since natural wood items do not possess the requisite resilience and tend to deteriorate when exposed to weather or immersed in water. The invention overcomes this problem by covering the rod with a layer of resin-bound glass filaments that longitudinally extend over the wooden core.

At first, the glass filaments are bound around the core by mechanically applying a temporary spiral wrapping of biding tape often made of cellophane. Then, the rod must pass through an oven where the resin coating is applied. After exiting the oven, the tape is uncoiled leaving a spiral marking on the rod’s surface. Interestingly, the mark was not apparently visible. Due to its rough surface,

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<sup>123</sup> According to TTAB’s established practice, a colour would be deemed functional if it is a natural by-product of the manufacturing process for the relevant goods. For a very recent confirmation of that principle, see *In re Hodgdon Powder Company, Inc.*, Serial No. 85947962 (June 30, 2016) available at <http://ttabvue.uspto.gov/ttabvue/ttabvue-85947962-EXA-10.pdf> (colour white held to be non-functional and distinctive when used in connection with gunpowder). Interestingly, the TTAB does not seem to have endorsed a mirror image rule which would exclude from registration any sign which is the natural by-product of a feature dedicated to the utilitarian purpose of the article. See *In re Sutro Product Development, Inc.*, Serial No. 77418246 (August 1, 2013)[not precedential!] available at <http://ttabvue.uspto.gov/ttabvue/ttabvue-77418246-EXA-18.pdf>: “Rather, the examining attorney maintains that the sound is a necessary by-product of a functional feature and, thus, cannot be registered. When the Board asked the examining attorney at the oral hearing if there was any case law on point to support his “by-product” theory behind the functionality refusal, the examining attorney replied in the negative. And we are unaware of any such case law.” That case concerned the registrability of a sound made by eyeglass hinges as a trade mark. Unless the mark is essential to the use or purpose of the article it will not be deemed functional in the legal sense according to the TTAB’s view. In addition, the TTAB held that the registration of that sound mark would not put competitors at a significant non-reputation related disadvantage. It should be noted that the TTAB showed willingness to accept such a “by-product” theory in *Kawasaki Motors Corp. v. H-D Michigan, Inc.*, 43 U.S.P.Q.2d 1521 (T.T.A.B. 1997). There the applicant sought to register the sound of a motorbike’s engine as a trade mark. Unfortunately, the issue was not addressed as the applicant eventually abandoned its application. This discussion indicates that the functionality analysis involves nuanced inquiries upon the nature of the shape and the underlying technical considerations. Trade dress should be subjected to functionality scrutiny regardless of whether it is causally related to the utilitarian function of the trademarked good or inevitably results from the latter’s manufacturing process.

<sup>124</sup> *In re Shakespeare Co.*, 289 F.2d 506 (1961).

<sup>125</sup> *Id.* at 507.



though, the rod's user could easily feel the mark so that it could, in the court's view, be considered more of a tactile mark than a visual mark.<sup>126</sup>

As the spiral marking performed neither any useful function in the rod nor served other decorative purposes, functionality seemed to be inapplicable as a bar to registrability to the case at hand. Nevertheless, the court held that the overriding public considerations reflected in the functionality doctrine militated against the registration of a feature as a trade mark that is the necessary result of a manufacturing process.<sup>127</sup> If that were possible, so the argument went, the trade mark proprietor would have been able either to exclude others from the use of the patented method upon the patent's expiration or place constraints on its use by forcing competitors to "go to the trouble and expense" of removing the spiral marking from their rods.<sup>128</sup> The court also noted that it was immaterial whether there were alternative manufacturing methods available, which allowed for the manufacturing of rods without any mark remaining on them.<sup>129</sup> Trade mark rights should not interfere with the freedom of practicing the process of manufacture taught in that particular patent.

Interestingly, the CCPA addressed an argument raised by the Patent Office Solicitor that the term "functional" may not simply refer to a feature causally related to the product's utilitarian purpose but could also encompass trade dress resulting from a specific process of manufacture. While the court did not consider this literal interpretation as untenable, it decided to rest its decision on the principle that trade dress claims may not lead to the monopolization of a manufacturing process or interfere with its unconstrained practice.<sup>130</sup> It is submitted, however, that the statutory term "functional" is broad enough to encompass trade dress dictated by technical rules of manufacture, thereby creating enough leeway for the courts to develop and refine the principles of functionality.<sup>131</sup>

Some guidance can also be found in *Kellogg v. National Biscuit Co.*<sup>132</sup> National Biscuit sued competitor Kellogg under a theory of unfair competition after the

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<sup>126</sup> *Id.*

<sup>127</sup> *Id.* at 508.

<sup>128</sup> *Id.* "Were the spiral marking to be treated as a trademark, the holder of the trademark rights would have a potentially perpetual monopoly which would enable it either to prevent others from using the process which results in the mark, or force them to go to the trouble and expense of removing it."

<sup>129</sup> *Id.*

<sup>130</sup> *Id.* "The Patent Office Solicitor would have us hold the spiral marking to be 'functional,' 'because it results from the specific process described in the Howald et al. patent.' While this might be convenient from the standpoint of making certain precedents literally applicable and facilitate the classification of legal literature, the controlling principle goes deeper and we prefer to rest our decision on the principle rather than on a mere label. It seems to us appellant is quite accurate in saying the spiral mark performs no function whatever, but that is not the determining factor."

<sup>131</sup> On the idea of a law making partnership between the courts and Congress in the field of trade mark law, see generally G.B. Dinwoodie, "The Common Law and Trade Marks in an Age of Statutes" in by C.W. Ng & L. Bently & G. D'Agostino (eds.), *The Common Law of Intellectual Property: Essays in Honour of Professor David Vaver*, 331 (2010).

<sup>132</sup> *Kellogg Co. v. National Biscuit Co.*, 305 U.S. 111 (1938).

latter marketed imitations of the plaintiff's pillow-shaped breakfast cereal. The product was an invention of Henry D Perky, who obtained patents both for its manufacturing method and for the machines used for its production. He also took out a design patent for the breakfast biscuit, which was declared invalid at a later stage. Commercial success came only after the ownership of the patents passed to National Biscuit. The unfair competition claim alleging deception resulting from product imitation came long after the expiry of the patents, something which is typical of those cases.

Turning to the issue of functionality, the Supreme Court agreed with the District Court's assessment, namely that the shape could not be protected due to competitive necessity since it affected the article's quality and the cost of its manufacture.<sup>133</sup> To justify its opinion, the court invoked an alternative theory already formulated in *Singer Mfg. Co. v. June Mfg. Co.*<sup>134</sup> where it was held that once a patent expires, the public obtains "the right to make the machine in the form in which it was constructed during the patent" (i.e. the right to copy).<sup>135</sup> The public's right to copy was simply considered a quid pro quo upon which a temporally limited monopoly in the form of a patent was granted (bargain theory of patents).<sup>136</sup> Since the pillow shape was disclosed in an expired patent, it was dedicated to the public by virtue of a contract between the inventor and the state, which provided for the grant of a limited monopoly in exchange for the absolute freedom of the public to reproduce the item at will after the patent term.<sup>137</sup> The two theories relied upon by the court, i.e. the right to copy and the doctrine of functionality based on competitive need, seem irreconcilable since competitive need might be absent in the case of a feature that is previously disclosed in a patent application. Nevertheless, in that particular case the outcome was the same, irrespective of which theory was controlling.<sup>138</sup> In theory, however, the right to copy and the doctrine of functionality constitute separate theories on the limitation of trade dress protection. In practice, the prevailing view seems to be that the considerations underlying the right to copy have been absorbed by the functionality doctrine and now form a part of its calculus.<sup>139</sup> Theories related to the right to copy inform the doctrine of

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<sup>133</sup> *Id.* at 115.

<sup>134</sup> *Singer Mfg. Co. v. June Mfg. Co.*, 163 U.S. 169, 185 (1896).

<sup>135</sup> On the different sources of the right to copy, see G.B. Dinwoodie, "Trade Dress Protection and the Functionality Doctrine" Chapter 16 in H.C. Hansen (ed.), *International intellectual property law & policy - Volume 5* (2003). Other cases extended the right to copy to unpatented product shapes, i.e. shapes which had not been previously disclosed in a patent and do not satisfy the stringent criteria for patent protection. *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225 (1964); *Compco Corp. v. Day Brite Lighting, Inc.*, 376 U.S. 234 (1964).

<sup>136</sup> M. Barrett, "Consolidating the diffuse paths to trade dress functionality: Encountering *TraFFix* on the way to *Sears*" 61 Wash. & Lee L. Rev. 79, 153-57 (2004)(examining the genesis of the bargain theory of patents and its relationship with the functionality doctrine).

<sup>137</sup> *Kellogg* at 114.

<sup>138</sup> As explained by G.B. Dinwoodie, "The story of *Kellogg Co. v. National Biscuit Co.*: Breakfast with Brandeis" in J. Ginsburg & R.C. Dreyfuss (eds.), *Intellectual property stories* (2005): "The *Kellogg* opinion contained language that canvassed numerous doctrines of trademark and unfair competition law, instantly creating potential influence in a great number of cases."

<sup>139</sup> J.T. McCarthy, *McCarthy on trademarks* § 6:10.

functionality. Of course, this issue is still open to debate.<sup>140</sup> Consequently, the aspect of the right to copy pertaining to the freedom of practicing unpatented methods of manufacture must be integrated into the functionality doctrine.<sup>141</sup>

Most importantly, the court's reasoning in *Kellogg* indicates that it indeed took into account the fact that the shape was closely associated with a manufacturing process that was no longer patented. The process, as described in the opinion of the lower court,<sup>142</sup> entailed many steps leading to the creation of thin wheat filaments that were then layered one upon another to build up a long band whose thickness was predetermined to correspond to the thickness of the end product. At one of the final stages, the band would be cut into biscuit lengths by knives that left the biscuits pressed together at the two ends. Those biscuits were then cooked in a way that raised the top except at the ends, separating the filaments and thus making the interstitial texture of the whole resulting in a pillow-shaped cereal more obvious. Notably, the patented machines were devised only to manage the production of pillow-shaped cereals.

Apart from assessing competitive need and relying on the disclosure of the shape in expired or invalid patents, the court placed emphasis on the biscuit's form resulting from a production process taught by the basic patent, with the patented machines originally designed to produce only pillow-shaped biscuits.<sup>143</sup> Hence, the product's shape was closely associated with a manufacturing method whose patent had expired and as such was excluded from protection on the grounds of functionality. In addition, the same shape was essential to the use of the machines that were no longer patented in conformity with the teachings of the expired patent so that the prohibition of its imitation by virtue of an unfair competition claim would interfere with the freedom to use devices that belonged to the public domain.<sup>144</sup>

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<sup>140</sup> See the discussion in Barrett, "Consolidating the diffuse paths to trade dress functionality" 61 Wash. & Lee L. Rev. 79, 153-57 (2004) and Dinwoodie, "Trade Dress Protection and the Functionality Doctrine" in *International intellectual property law & policy - Volume 5* (2003).

<sup>141</sup> Integrating those aspects of the right to copy into the functionality doctrine also renders it unnecessary to pursue an argument relying on the Intellectual Property Clause (IPC) of the US Constitution, which would posit that a trade dress claim in a product design associated with a particular manufacturing method amounts to a practical equivalent of an expired process patent. Article I, Section 8, Clause 8, of the United States Constitution restricts the power of the Congress to the effect that the latter may not grant any rights equivalent to the inventors' exclusive rights referred to therein without limiting their temporal scope. A similar approach was adopted by the US Supreme Court in *Traffix*. There, the court noted that the rule precluding the protection of purely technical shapes from trade dress protection avoids the perpetuation of expired patents without it being necessary to fall back on an argument derived from the IPC, *Traffix* at 35.

<sup>142</sup> *National Biscuit Company v. Kellogg Company*, 1935 WL 24932, D. Delaware, (1935) (Not Reported in F.Supp.).

<sup>143</sup> *Kellogg* at 114: "The plaintiff has not the exclusive right to sell shredded wheat in the form of a pillow-shaped biscuit —the form in which the article became known to the public. That is the form in which shredded wheat was made under the basic patent. The patented machines used were designed to produce only the pillow-shaped biscuits. And a design patent was taken out to cover the pillow-shaped form. Hence, upon expiration of the patents the form [...] was dedicated to the public."

<sup>144</sup> *Dippin' Dots, Inc. v. Frosty Bites Distribution Inc.*, 369 F.3d 1197 (11<sup>th</sup> Cir. 2004) is another example. There, both parties were into the business of selling flash-frozen ice cream. The product is the result of a freezing process, whereby small amounts of ice cream are frozen very quickly,

As already explained, the doctrine of functionality has accommodated arguments derived from the theory of the “right to copy” after balancing the equities involved in a particular category of disputes.<sup>145</sup> Rather than having the patent laws imposing limits on trade mark rights,<sup>146</sup> modern trade mark norms have integrated those concerns into their legislative program by excluding specific subject matter from trade mark protection.<sup>147</sup>

Another important dimension of the legal problem we examine is the fact that signs emerging as the natural result of a given manufacturing process might not only be necessary to competitors because they allow the cheap and efficient practicing of the relevant technical teachings. They might also constitute the most efficient instrument for communicating to the public that a product is manufactured according to a particular process or the most “natural and

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almost instantly. Milk molecules stay very small so that there is insufficient time for ice crystals to form. Hence, flash-frozen ice cream is extraordinarily smooth and creamy. DDI sold its own version of flash-frozen ice cream under the brand “dippin’ dots”, which consisted of free flowing small spheres or beads of ice cream. Dippin’ dots was advertised as the “Ice cream of the future.” Its production was based in a process patent obtained by microbiologist Curtis Jones, the founder of DDI. Step 3 of the patented process involved the freezing of an alimentary ice cream composition into beads. The subsequent steps contained instructions on how to keep the product at an appropriate temperature while the product is being stored so that it remains free flowing and on how to lower its temperature before serving so that the mouth of the consumer does not get burned during consumption. The plaintiff asserted a trade dress claim in the form, size, and colour of its unique flash-frozen ice cream product. The defendant’s competing product, the “frosty bites”, comprised mainly small popcorn-shaped, along with some spherical-shaped, ice cream bites. The court held that DDI’s trade dress was functional as a whole and so were also its individual elements. Colouring served the purpose of indicating the ice cream’s flavor. The size of each “dot” contributed to the product’s taste as the flash-freezing of larger “droplets” of ice cream would create a different taste. The bead shape facilitated the product’s flowing nature. Notably, the court affirmed the functional character of the product’s shape and size with the additional argument that those elements resulted from the process disclosed in the patent. The opinion also contains an interesting analysis of competitive necessity. In the court’s view, DDI’s trade dress comprised elements that are intrinsic to any flash-frozen ice cream product. If the trade dress claim was successful then the plaintiff would have been successful in precluding competitors “from competing in the flash-frozen ice cream market.” It is arguable whether there is a separate market for flash-frozen ice cream in the antitrust sense. What the court seems to suggest is that the concept of competitive necessity refers to the ability of competitors to market highly substitutable products. Those considerations are applicable to *Nestlé* as well. Assuming that Cadbury’s evidence is credible, trade mark rights in the shape of the “Kit-Kat” chocolate bar would not prevent other traders from competing with *Nestlé* but will nevertheless interfere with their ability to market highly substitutable multiple finger chocolate bar products. Cf. *Hauck GmbH & Co. KG v Stokke A/S, Stokke Nederland BV, Peter Opsvik and Peter Opsvik A/S* (Case C-205/13) EU:C:2014:2233, Opinion of Advocate General Szpunar at [57].

<sup>145</sup> G.B. Dinwoodie, “The Death of Ontology: A Teleological Approach to Trademark Law” 84 Iowa L. Rev. 611, 717 (1999).

<sup>146</sup> See the discussion in M. Pollack, “The owned public domain: The constitutional right not to be excluded—Or the Supreme Court chose the right breakfast cereal in *Kellogg v. National Biscuit Co.*” 22 Hastings Comm. & Ent. L. J. 265, 286–87 (2000).

<sup>147</sup> In that regard, we have experienced a “negative convergence” of IP rights. See A. Quaedvlieg, “Concurrence and convergence in industrial design: 3-dimensional shapes excluded by trade mark law” in W.F. Grosheide & J.J. Brinkhof (eds.), *Intellectual property law: Articles on crossing borders between traditional and actual* 26-27 (2004).

effective means of marketing” the product. This point is illustrated in another case involving Shakespeare and the manufacture of fishing rods.<sup>148</sup>

Over the course of time Shakespeare obtained additional patents in methods that improved the quality of its rods. One of them, the Lindler patent, adapted the Howald-process by introducing the use of graphite as one of the raw materials. Due to graphite’s extreme solidity and low specific gravity, the new method resulted in improved lightweight rods of higher strength. Shakespeare’s rods had also a clear fiberglass tip. The new rod was marketed under the brand “Ugly Stick.” It had an opaque base of charcoal grey colour, which incidentally is graphite’s natural colour. The tip was whitish-translucent. Its clear colour resulted from mixing fiberglass with the resin most suited for use in the process invented by Lindler. After the patent expiry, Shakespeare asserted a trade dress claim for those features. The District Court held that the trade dress was functional on the grounds of competitive necessity.<sup>149</sup> As for the clear fiberglass tip, the court found that it would be more expensive for competitors to market rods with coloured tips.<sup>150</sup> Furthermore, there was no other alternative design that was equally effective in communicating the product’s composition.<sup>151</sup>

On top of that, the court noted that trade dress protection would “preclude all competitors from using the natural and most effective means of marketing their products.”<sup>152</sup> The final point made by the court indicates that shapes associated with a manufacturing process might also be functional from a marketing perspective. In *TrafFix*,<sup>153</sup> the US Supreme Court considered the same communicative aspects with regard to product features dictated by a product’s utilitarian function. The court noted that the presence and visibility of the dual-spring design serves an important market need by assuring the potential buyer that the device will work in line with its purpose. This observation highlights the parallels between a rule precluding trademark protection for signs associated with a manufacturing process and a bar to the assertion of trademark rights in signs dictated by the utilitarian purpose of an article.

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<sup>148</sup> *Shakespeare Co. v. Silstar Corp. of America, Inc.*, 802 F.Supp. 1386 (1992).

<sup>149</sup> Despite all of that, Shakespeare’s trade mark could not be challenged because it was incontestable and, at that time, an incontestable registration could not be challenged on functionality grounds. The state of the law was then confirmed by the decision of Fourth Circuit on appeal, *Shakespeare Co. v. Silstar Corp. of America, Inc.*, 9 F.3d 1091 (4<sup>th</sup> Cir. 1993). Commentators reacted vividly, disapproving a rule that had the potential to create “perpetual patents”, see T.H. Davis, Jr., “Of “ugly stiks” and uglier case law: A comment on the federal registration of functional designs after *Shakespeare Co. v. Silstar Corp. of America*” 51 Wash. & Lee L. Rev. 1257 (1994); M. Pollack, “Unconstitutional incontestability? The intersection of the intellectual property and commerce clauses of the Constitution: Beyond a critique of *Shakespeare Co. v. Silstar Corp.*”, 18 Seattle U. L. Rev. 259 (1995). On remand, the District Court opined that competitors could avail themselves of a descriptive fair use defense, *Shakespeare Co. v. Silstar Corp. of America, Inc.*, 906 F.Supp. 997, 1015-1016 (D.S.C. 1995). Now section 33(b)(8) Lanham Act explicitly provides that functionality is a defense against incontestable registrations.

<sup>150</sup> *Shakespeare Co. v. Silstar Corp. of America, Inc.*, 802 F.Supp. 1386, 1391 and 1398 (1992).

<sup>151</sup> *Shakespeare* at 1398; Functionality is also concerned with unjustified restrictions to commercial communication that cannot be rectified through the descriptive fair use defense. Cf. J.T. McCarthy, *McCarthy on trademarks*, § 7:83; see also *Abercrombie & Fitch Stores, Inc. v. Am. Eagle Outfitters, Inc.*, 280 F.3d 619, 643-44 (6<sup>th</sup> Cir. 2002).

<sup>152</sup> *Shakespeare* at 1398.

<sup>153</sup> *TrafFix* at 34.

## 8. Conclusion

Protecting the shape of utilitarian articles to the extent they have obtained trade mark significance encourages a type of product differentiation that promotes market transparency. Yet, applications to register product shapes or features as trademarks would often be motivated by aspirations to establish an exclusive legal position capable of conferring an undeserved competitive advantage upon the applicant. Section 3(2)(b) TMA 1994 and the doctrine of functionality in US law seek to avert the emergence of stealth patents by preventing traders from asserting trade mark rights in technical solutions when these are expressed in signs solely dedicated to the attainment of a technical result, which coincides with a product's utilitarian purpose. Trade mark rights should not hinder the efforts of competitors to market goods offering particular functional characteristics by limiting their freedom to choose the technical solution they deem appropriate. This ensures that the protection of *de facto* functional shapes as trade marks does not create social losses by unduly restricting imitative competition.

The same policy considerations apply to cases where the applicant seeks to obtain registered trade mark rights in a shape that is so closely associated with a manufacturing method that the potential trade mark proprietor could then effectively either deprive competitors of the possibility to exploit an unpatented manufacturing process or unreasonably constrain its practice. A teleological interpretation of s. 3(2)(b) TMA 1994 reading the provision as precluding registration of a shape necessary to obtain a technical result not only with regard to the manner in which the goods function but also with regard to the manner in which they are manufactured lies within the textual limits of that norm. The US doctrine of functionality is flexible enough to accommodate those concerns as the previous analysis has indicated.

The relationship between patents and trade marks can become very complicated for the precise reason that it is not always easy to ascertain with the naked eye which types of technical considerations actually determine a given shape. Not surprisingly, the assessment of *de jure* functionality entails an objective analysis of the shape and its characteristics that relies on evidence gathered by examining patent documents or resorting to expert testimony.<sup>154</sup> Without a meticulous analysis of the mark, it is not possible to determine with precision the exact nature of the subject matter for which an exclusive legal position is sought as well as the anticompetitive effects that will accrue if registration commences. This is even more valid when it comes to shapes that incorporate technical rules pertaining to a process of manufacture.<sup>155</sup> It is equally necessary to have explicit rules on functionality directly addressing those concerns.

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<sup>154</sup> *Lego* (Case C-48/09 P) [2010] E.C.R. I-8403; [2010] E.T.M.R. 63 at [70]-[71].

<sup>155</sup> Evidence concerning the manufacturing considerations reflected in a product shape is rare, see USPTO, Trademark Manual of Examining Procedure 1202.02(a)(v)(D) (April 2017) available at <https://www.uspto.gov/trademark/guides-and-manuals/tmep-archives>.