DOCTRINE OF FUNCTIONALITY UNDER INTELLECTUAL PROPERTY RIGHTS

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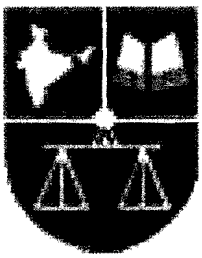

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CERTIFICATE

This is to certify that this dissertation entitled "Doctrine of Functionality under Intellectual Property Rights" is a piece of research work done by Ms Pooja Tripathi, student of 2008 – 2010 batch LL.M-Business Laws (ID NO 339) at National Law School of India University, Bengaluru under my guidance and supervision for the partial fulfillment of the requirement of LL.M degree at National Law School of India University.

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DECLARATION

I, Pooja Tripathi, do hereby declare that the dissertation entitled "Doctrine of Functionality under Intellectual Property Rights" is outcome of my own work conducted under supervision of Dr. T. Ramakrishna, Professor of Intellectual Property Rights Law at National Law School of India University, Bengaluru.

I further declare that to the best of my knowledge and the dissertation does not contain any part of any work, which has already been submitted for award of any degree either in this university or in any other University/Deemed University without proper citation.

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TABLE OF CASES

13. Dimminaco AG v. Controller of Patents, AID No. 1 of 2002, Calcutta High Court.

14. Computer Associates v. Altai, 982 F 2d 693.

15. Fabrication Enters. v. Hygenic Corp., 64 F.3d 53, 55 (2d Cir. 1995).

16. Fabrica, Inc. v. El Dorado Corp., 697 F.2d 890, 890 (9th Cir.1983).

17. Galiano v. Harrah's Operating Co., 416 F.3d 411 (5th Cir. 2005).

18. Gibson Guitar Corp. v. Paul Reed Smith Guitars 423 F.3d 539 (6th Cir. 2005).

19. Gottschalk v. Benson, 409 U.S. 63 (1972).

20. Hitachi Auction Method, T 0258/03: [2004] O.J. EPO 575. TBA.

21. IBM Application, [2000], E.P.O.R.301 TBA.

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26. Keene Corp. v. Paraflex Indus., Inc., 653 F.2d 822, 825 (3d Cir. 1981).

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28. Libman v. Vining Indus., 69 F. 3d 1360 (7th Cir. 1995).

29. Mazer v. Stein, 347 U.S. 201 (1954).

30. Master Distributors Inc. v. Pako Corporation, 777 F. Supp. 744 (U.S. Dist. MN, 4th Div. 1991).

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32. Owens-Corning Fiberglas Corp., 774 F. 2d 1116, 227 U.S.P.Q. 417 (Fed. Cir. 1985).

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34. Pivot Point International v. Charlene Products, Inc,372 F.3d 913 (7th Cir. 2004).

35. Q-Co Industries, Inc. v. Hoffman, 625 F.Supp. 608 (S.D.N.Y. 1985).

36. Qualitex Co. v. Jacobson Prods. Co., 514 U.S.159, 164 (1995).

37. Reckitt & Colman Products Ltd v. Borden Inc., (1990) 1 All ER 873.

38. Remington rand Corp v. Philips Electronics NV (1995), 64 C.P.R. (3d) 467 (F.C.A.) [Remington Rand].

39. Sega Enters. v. Accolade, Inc., 977 F.2d 1510, 1530 (9th Cir. 1992).

40. Standard Terry Mills, Inc. v. Shen Mfg. Co., 803 F.2d 778, 780-81 (3d Cir. 1986).

41. State Street Bank and Trust Co v Signature Financial Group, Inc., (149 F.3d 1368) (1998).

42. Stormy Clime Ltd. v. ProGroup, Inc., 809 F.2d 971, 977-78 (2d Cir. 1987).

43. Thomas Betts v. Panduit Corp. (2000), 4 C.P.R. (4th) 498 at Paras. 23-4 (F.C.A.).

44. Tools USA & Equip. Co. v. Champ Frame Straightening Equip., Inc., 87 F.3d654, 658 (4th Cir. 1996) .

45. The Nutrasweet Company v. The Stadt Corp. and Cumberland Packing Corp., 917 F. 2d 1024 (7th Cir. 1990).

46. Transgo, Inc. v. Ajac Transmission Parts Corp., 768 F.2d 1001, 1028 (9th Cir.1985).

47. TrafFix Devices v. Marketing Displays, Inc., 532 U.S. 23.

48. United States Golf Ass'n v. St. Andrews Sys., Data-Max, Inc., 749 F.2d 1028, 1033 (3d Cir. 1984).

49. Untied Distillers Plc. v. Jagdish Joshi (2000) P.T.C.502.

50. Vaughn Mfg. Co. v. Brikam Int'l Inc., 814 F. 2d 346 (7th Cir 1987).

51. Vicom's Application, [1988] O.J. EPO 19.

52. Williams Electronics, Inc. v. Artic International, Inc., 685 F.2d 870 (3d Cir. 1982).

53. Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc., 797 F.2d 1222 (3d Cir. 1986), cert. denied, 107 S.Ct. 877 (1987).

54. Zee Television Ltd. v. Sundial Communication Pvt. Ltd.2003 (5) BomCR 404, 2003 (3) MhLj 695.

TABLE OF CONTENT

CHAPTER 3

IMPORTANCE OF FUNCTIONALITY FEATURE UNDER PATENT LAW

CHAPTER 4

ROLE OF FUNCTIONALITY DOCTRINE UNDER COPYRIGHT LAW

CHAPTER 5

APPLICATION OF DOCTRINE OF FUNCTIONALITY UNDER TRADEMARK LAW

CHAPTER 6

SUGGESTION AND CONCLUSION

CHAPTER 1

INTRODUCTION

Functional doctrine is one of the elements to determine whether the subject matter under Intellectual Property Rights should be protected or not. This doctrine plays essential part in patent, trademark and copyright. In copyright apart from expression, not idea, which has to be considered to determine whether the subject matter can be protected or not. Functionality of work is an important factor within the meaning of copyright laws. The copyrights to architectural design, for example, are generally reserved for architectural works that are not functional. If the only purpose or function of a particular design is unaffected, the work cannot be copyrighted. For instance, a person may not copyright a simple design for a water valve. However, if a person creates a fancy water valve, the design is more likely to be copyrightable.

The term functional is at the heart of determining whether or not a product configuration or trade dress is protectable. While the doctrine of functionality represents an attempt to resolve the fundamental tension between a desire to protect originators of designs and a distate for copiers, on the other hand, the policy fostering effective competition, including the availability of all unpatented innovations. One intellectual property encyclopedia defines functionality as "that aspect of design which makes a product work better for its intended purpose, as opposed to making the product look better aesthetically or to identifying the

commercial source of the product."[1] Although it is agreed that there is a class of designs that are unprotectable because they are functional, the precise delineation between unprotectable, functional designs and those that are protectable is unsettled.

The origin of the doctrine lied in 1939 decision in ***Imperial Tobacco and Co v. Registrar of the Trademarks***[2]. At issue was whether the plastic outer wrapper on a package of cigarettes could be registered as distinguishing guise. The Court denied the registration by stating that: ***".....any combination of elements which are primarily designed to perform a function.....is not a fit subject-matter for a trademark, and if permitted would lead to grave abuses."*** The grave abuses that the doctrine was developed to counter have been alternately described as 'restraint on manufacturing and trade[3]', 'unfairness' to the public if the patentee could, could after the expiry of the patent....give itself a monopoly over the shape[4]' and abuse of monopoly position in respect of product and processes'.

[1] J. McCarthy, Desak Encyclopedia of Intellectual Property 136 (1991).

[2] Imperial Tobacco and Co v. Registrar of the Trademarks, [1939] 2 D.L.R. 65 (Ex. Ct.).

[3] Remington rand Corp v. Philips Electronics NV (1995), 64 C.P.R. (3d) 467 (F.C.A.) [Remington Rand].

[4] Thomas Betts v. Panduit Corp. (2000), 4 C.P.R. (4th) 498 at Paras. 23-4 (F.C.A.).

Purposes of the functionality doctrine

The functionality doctrine is a judicial expression of caution directed against conferral of trade-dress protection. As such, the ultimate purpose of the functionality doctrine is to establish limits to trademark protection[5]. There are two apparent purposes for the functionality doctrine: (1) to prevent the perpetual monopolization of valuable product features, and (2) to partition the law of intellectual property between trademark and other forms of protection such as copyright and patent.

1. Prevention of Perpetual Monopolies

The functionality doctrine is keenly concerned with preventing overbroad grants of trademark protection. This concern is significant because trademark protection has an indefinite duration[6]. Thus, courts have awarded trademark protection warily in order to avoid conferring

[5] Fabrication Enters. v. Hygenic Corp., 64 F.3d 53, 55 (2d Cir. 1995) ("If trade dress protection of product design goes too far, however, the public may be deprived of the benefits of robust competition by precluding use of utilitarian product features. In consequence, the doctrine of functionality limits the extent of trade dress protection of product design.").

[6] Cf. Merchant & Evans, Inc. v. Roosevelt Bldg. Prods. Co., 963 F.2d 628, 633 (3d Cir.1992): The rationale for the functionality limitation on trade dress protection "has as its genesis the judicial theory that there exists a fundamental right to compete through imitation of a competitor's product, which right can only be temporarily denied by the patent or copyright laws." To allow indefinite trademark protection of product innovations would frustrate the purpose of the limited duration of patents to foster competition by allowing innovations to enter the public domain after seventeen years. Id. (quoting In re Morton-Norwich Prods., Inc., 671 F.2d 1332, 1336 (C.C.P.A. 1982); ("The Doctrine of Elections evolved from a belief that trademark protection combined with

perpetual monopolies for features that are protected more properly under impermanent protections[7].

By ensuring that valuable features do not receive trade-dress protection, the functionality doctrine prevents manufacturers from acquiring exclusive rights in marketable product features[8]. The economic significance of such an exclusive right is considerable; protecting a feature from imitation allows the trade-dress holder to exercise a legally enforced monopoly over products bearing that feature. In essence, permitting a valuable feature to receive trade dress protection disrupts free market competition by enabling the trade dress holder to

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design patent protection converts the limited monopoly granted under the design patent into a perpetual monopoly.").

[7] Sega Enters. v. Accolade, Inc., 977 F.2d 1510, 1530 (9th Cir. 1992) ("The trademark is misused if it serves to limit competition in the manufacture and sales of a product. That is the special province of the limited monopolies provided pursuant to the patent laws." (quoting Anti-Monopoly, Inc. v. General Mills Fun Group, 611 F.2d 296, 301 (9thCir. 1979); Clamp Mfg. Co. v. Enco Mfg. Co., 870 F.2d 512, 516 (9th Cir.) ("The requirement of nonfunctionality is based 'on the judicial theory that there exists a fundamental right to compete through imitation of a competitor's product, which right can only be temporarily denied by the patent or copyright laws.'" (quoting Morton-Nonich, 671 F.2d at1336)), cert. denied, 493 U.S. 872 (1989); Brunswick Corp. v. Spinit Reel Co., 832 F.2d 513,519 (10th Cir. 1987) ("A recurring concern which encourages a broad definition of 'functional,' is that granting protection to a feature will create a monopoly which would prevent others from successfully competing with the individual who developed the feature.").

[8] Transgo, Inc. v. Ajac Transmission Parts Corp., 768 F.2d 1001, 1028 (9th Cir.1985) ("If the particular feature is an important ingredient in the commercial success of the product, the interest in free competition permits its imitation in the absence of a patent or copyright." (quoting Fabrica, Inc. v. El Dorado Corp., 697 F.2d 890, 890 (9th Cir.1983) (quoting Pagliero v. Wallace China Co., 198 F.2d 339, 343 (9th Cir. 1952), cert. denied, 471 U.S. 1059 (1986).

establish a price above the competitive equilibrium for products bearing that feature[9]. Such a privilege i.e., a monopoly over a useful design is anathema to the cardinal tenet of free-market economics, namely, that price is optimally established in the long run only through the unregulated interaction between supply and demand[10].

A legally enforced monopoly deviates from the free-market vision because such a monopoly prevents suppliers from competing with the monopolist in the market for the protected product. By ensuring that grants of such monopolies are confined to features with minimal value beyond source-identification, the functionality doctrine prevents trademarks from disabling the very markets that they attempt to foster[11]. Thus, the functionality doctrine does

[9] See FRANKLN M. FisHER, INDUSTRIALORGANIZATION, ECONOMICS AND THE Law 19-21 (John Monz ed., 1991) (explaining difficulties in applying theory to practice); ROGERSHERMAN, THE REGULATION OF MONOPOLY 64-651989).

[10] This "cardinal tenet" is an invariant lesson in almost every basic economics course. See, e.g., PAUL A.SAMUELSON & WILUAM D. NoRDHAus, Economics 443 (13th ed. 1989) ("A thousand forces affect price. But in a freely competitive market, they do so only by acting through supply and demand.... Interferences with supply and demand will often lead to inefficient pricing and allocations." (formatting altered)). However, the principle operates upon several assumptions, such as perfect information and zero transactions costs (which trademark partly seeks to remedy). See R. H. Coase, The Problem of Social Cost, 3J.L. ECON. 1(demonstrating "efficient" allocations of liability and externalities in the presence of zero transactions costs).

[11] Tools USA & Equip. Co. v. Champ Frame Straightening Equip., Inc., 87 F.3d654, 658 (4th Cir. 1996) ("The non-functionality requirement for trademark or trade dress protection 'prevents trademark law, which seeks to promote competition by protecting a firm's reputation, from instead inhibiting legitimate competition by allowing a producer to control a useful product feature.'" (quoting Qualitex Co. v. Jacobson Prods. Co., 514 U.S.159, 164 (1995). Another way to view functionality is to see it as a means by which society values intellectual creations. The greater the value of the innovation, the keener the interest there is in ensuring that the innovation is not perpetually withheld from the public. As the Third Circuit noted: The use of "non-functional" features of a product or service to identify its source is legally protected against imitation by competitors, because the value of such features in identifying the source of the goods or services outweighs the social interest in allowing competitors to copy them. Functional features, on the other hand, may not be legally

not actively promote competition-rather, it fosters competition by preventing market participants from erecting permanent obstacles against market entrants.[12]

2. Partitioning of Intellectual-Property Law

The functionality doctrine also aids in distinguishing trademark law from other bodies of intellectual property law[13]. There is a widely held belief that trademark law may be liberally extended to fulfill policy goals. For example, one court has advocated a broad definition of trademark protection in order to encourage beauty in product design, complaining that "A

protected methods of identification, regardless of their association with the original manufacturer, because their usefulness in identifying the source of the product or service is outweighed by the social interest in competition and improvements, which are advanced by giving competitors free access to those features. United States Golf Ass'n v. St. Andrews Sys., Data-Max, Inc., 749 F.2d 1028, 1033 (3d Cir. 1984).

[12] American Greetings Corp. v. Dan-Dee Imports, Inc., 807 F.2d 1136, 1142 (3dCir. 1986) ("[The policy predicate for the entire functionality doctrine stems from the public interest in enhancing competition [;]' however, a court may also consider 'whether prohibition of imitation by others will deprive the others of something which will substantially hinder them in competition.' (quoting Keene Corp. v. Paraflex Indus., 653 F.2d 822,827 (3d Cir. 1981) (quoting Restatement (First) Of Torts 742 cmt.a (1938). Compare Keene, 653 F.2d at 827 (mistakenly explaining that "the policy predicate for the entire functionality doctrine stems from the public interest in enhancing competition") with Standard Terry Mills, Inc. v. Shen Mfg. Co., 803 F.2d 778, 780-81 (3d Cir. 1986) ("The functionality doctrine encourages competition by preventing one manufacturer from acquiring a monopoly by attempting to trademark those features of a design essential to a successful product of that type.").

[13] Jeffrey Milstein, Inc. v. Greger, Lawlor, Roth, Inc., 58 F.3d 27, 32 (2d Cir. 1995) ("Over extension of trade dress protection can undermine restrictions in copyright and patent law that are designed to avoid monopolization of products and ideas.").

narrow scope of trade-dress protection provides a disincentive for development of imaginative and attractive design. The more appealing the design, the less protection it would receive. As our ambience becomes more mechanized and banal, it would be unfortunate were we to discourage use of a spark of originality which could transform an ordinary product into one of grace[14]".

The expansion of trade-dress law to cover otherwise unprotectable garment designs in order to mitigate the unfairness to clothing designers[15]. These broad conceptions of trademark law are gravely erroneous. Trademarks are not commercial avenues through which societal objectives may freely be pursued. Rather trademarks maintain the workability of the market in the limited ways. As the Second Circuit explained:

"At first glance it might seem intolerable that one manufacturer should be allowed to sponge on another by pirating the product of years of invention and development without license or recompense and reap the fruits sown by another. Morally and ethically such practices strike a discordant note. It cuts across the grain of justice to permit an intruder to profit not only by the efforts of another but at his expense as well".

[14] Keene Corp. v. Paraflex Indus., Inc., 653 F.2d 822, 825 (3d Cir. 1981).

[15] See, e.g., S. Priya Bharathi, Comment, There Is More Than One Way to Skin a Copycat: The Emergence of Trade Dress to Combat Design Piracy of Fashion Works, 27 Tex. Tech. L. REv.1667, 1691-94 (1996).

But this initial response to the problem has been curbed in deference to the greater public good.... Imitation is the life blood of competition. It is the unimpeded availability of substantially equivalent units that permits the normal operation of supply and demand to yield the fair price society must pay for a given commodity[16]. The common misunderstanding over the scope of trademark law bears directly on the role of the functionality doctrine[17].

[16] American Safety Table Co. v. Schreiber, 269 F.2d 255, 271-72 (2d Cir.) (Citations omitted), cert. denied, 361 U.S 915 (1959).

[17] One of the most elegant admonishments against the overexpansion of trademark came from the Second Circuit: Courts must proceed with caution in assessing claims to unregistered trademark protection in the design of products so as not to undermine the objectives of the patent laws.... By bestowing limited periods of protection to novel, non-obvious, and useful inventions and new, original, and ornamental designs... the patent laws encourage progress in science and the useful arts. Society reaps the rewards of these advances in the short term to the extent that patent holders and their licensees incorporate protected ideas into new and useful products. These rewards are more fully realized in the longer term because novel ideas fall into the public domain upon the expiration of patent protection. Since trademark protection extends for an unlimited period, expansive trade dress protection for the design of products would prevent some functional products from enriching the public domain. This threat is particularly great when, as in the instant case, a first manufacturer seeks broad trade dress protection for a product on the ground that its arrangement of predominantly functional features is distinctive....To avoid undermining the purpose of the patent laws to place useful innovations in the public domain after expiration of a limited monopoly, courts must be sensitive to whether a grant of trade dress protection would close all avenues to a market that is otherwise open in the absence of a valid patent. Stormy Clime Ltd. v. ProGroup, Inc., 809 F.2d 971, 977-78 (2d Cir. 1987); see also Fisher Stoves, 626 F.2d at 196 (recognizing that the defendant, in imitating [the plaintiff], is doubtless sharing in the market formerly captured by the plaintiff's skill and judgment. While we sympathize with plaintiff's disappointment at losing sales to an imitator, this is a fact of business life.").

Intellectual properties are safeguarded by distinct bodies of law[18]. The three prevailing forms of protection for such properties are trademark, patent, and copyright law. Each body of law protects specific types of intellectual creations and each form accords a different term of protection. In its earliest incarnations, the functionality doctrine found shape in the belief that utilitarian features were more properly protected under the fleeting aegis of the patent statutes, rather than the endless vigilance of the trademark laws. However, this primitive exposition of the functionality doctrine misapprehended the complete role of the functionality defense. 'The functionality doctrine exists not only to separate trademarks from utility patents. Rather, as its evolution in the case law reveals, the functionality doctrine also seeks to fragment the whole of intellectual property protection into separate spheres by assigning creations of ingenuity into discrete legal categories. More specifically, the functionality doctrine prevents designs from attaining a longer period of protection than they deserve.

This understanding of functionality explains why the functionality doctrine also prevents copyrightable and design patentable creations from enjoying trademark protection. Copyrights and design patents are assigned to certain valuable, non-utilitarian designs for

[18] See David W. Opderbeck, *"Form and Function: Protecting Trade Dress Rights in Product Configurations"*, 20 SETON HALL LEGIS.J. 1, 2 (1996) (noting that "[product design features may be protected by several species of intellectual property rights" and listing design patent, copyright, and trade dress as the appropriate bodies of law).

finite periods of time. Accordingly, features protectable by copyrights and design patents do not deserve perpetual protection through trademark law[19].

The Supreme Court introduced this doctrine in ***Baker v. Selden***[20]. In Baker, the plaintiff sought exclusive rights over both the design and system of an accounting ledger. The Court held that, although the design was protectable under copyright, the accounting system was not. Specifically, the Court reasoned that "to give to the author of a book an exclusive property in the art described therein... would be a surprise and a fraud upon the public. That is the province of letters-patent, not of copyright." Although copyright functionality is not identical to trademark functionality, they operate on the same basic principles[21].

[19] The Fifth Circuit explained the difference between trademark and copyright in the following terms: The copyright laws are based on an entirely different concept than the trademark laws, and contemplate that the copyrighted material, like patented ideas, will eventually pass into the public domain. The trademark laws are based on the needed protection of the public and business interests and there is no reason why trademarks should ever pass into the public domain by the mere passage of time. Boston Prof'l Hockey Ass'n v. Dallas Cap & Emblem Mfg., 510 F.2d 1004, 1010-11 (5th Cir.), cert. denied, 423 U.S. 868 (1975).

[20] Baker v. Selden 101 U.S. 99 (1879).

[21] "Although functionality is a common defense, courts employ different tests for determining functionality in trade dress and copyright infringement actions.".

A design that has utility may not receive copyright protection because it is "functional." Thus, the design can, at most, be patented[22]. Because a patent's duration is shorter than that of a copyright, the operation of copyright functionality confirms the theory that a feature's functionality limits the duration of protection that feature may receive[23]. Moreover, copyright's functionality enables copyrightable products to be separated from patentable products[24].

The "partitioning" capacity of functionality sorts intellectual creations into the legal categories specifically designed to protect those creations. Under the current scheme of intellectual property, three areas of interaction exist among the three dominant bodies of intellectual-

[22] Cf 37 C.F.R. 202.1 (1997) ("The following are examples of works not subject to copyright and applications for registration of such works cannot be entertained: ... (b) Ideas, plans, methods, systems, or devices, as distinguished from the particular manner in which they are expressed or described in writing.").

[23] Closely related to the functionality doctrine is the doctrine of elections, which limits an inventor to receiving one form of intellectual-property protection for any particular feature, as opposed to multiple forms of protection. As the United States Copyright Office has indicated: "While the design patent act establishes an absolute monopoly, it lasts for a relatively short duration of fourteen years. Protection under copyright, on the other hand, lasts for life of the author plus fifty years, but protects only against copying. Yet, if design patent and copyright can cover the same design, the owner would benefit from a 'super monopoly' unaffected by important limitations in both the patent and copyright statutes. In the absence of any clear indication that Congress intended such an expansive system of protection to apply to certain designs, the Copyright Office believes the sounder public policy requires an owner to elect between systems of protection."

[24] See, e.g., Baker v. Selden, 101 U.S. 99 (1879).

property law: (1) between trademark and patent; (2) between trademark and copyright[25]; and (3) between copyright and patent[26]. The traditional understanding of functionality, which was based on utility, partitioned patentable features from trademarkable features. Aesthetic functionality seeks to partition designs protectable by trademark from those protectable by copyrights and utility patents. Lastly, copyright functionality partitions copyrightable designs from patentable ones. In sum, functionality separates these three bodies of law by determining the appropriate form of intellectual-property protection to govern any given design.

RESEARCH METHODOLOGY

Aim of the Research

The understanding on the doctrine of functionality will help determine whether the subject matter under Intellectual Property Rights can be protected or not. The aim of the research is to

[25] Burgunder B. Lee, *"Trademark and Copyright: How Intimate Should the Close Association Become"*, 29 SANTA Ca.RA L. REv. 89 passim, 1989, (describing the intersection between the copyright and trademark paradigms).

[26] Reichman J.H., *"Legal Hybrids Between the Patent and Copyright Paradigms"*, 94 COLUM. L. Rv. 2432, 2453-500, 1994, (reviewing American and European treatment of situations occurring at the edges of copyright and patent laws); John Shepard Wiley, Jr., *"Copyright at the School of Patent"*, 58 U. Cni. L. REv. 119, 121-27, 1991, (questioning the viability of the metaphysical distinctions between copyright and patent).

analyze the concept of the Doctrine of Functionality and the definition of such doctrine under the Intellectual Property Rights.

The clarity on the doctrine of functionality is not clear. There is no provision as such which has mentioned the definition of the functionality doctrine. Nevertheless the Court has made the decisions in many cases which indicate and give the direction to define the term of functionality doctrine.

Further the aim of this research is to analyze the application of doctrine of functionality in Intellectual Property Rights cases in India and many countries like US and EU law. This will help to understand which subject matter can be protected under Intellectual Property rights.

Object of the Research

The main object of this research to highlight that many countries include India have applied the functionality doctrine even though the clarity of such doctrine is not clear for example there is no provision which provide the exact definition and the application of such doctrine. However the development of this doctrine has been made by the decision of the Court. Under Indian law there is very obvious that there is no provision which has stated what doctrine of

functionality is as such. However there are a few cases which the Court has tried to point the application of such doctrine but there is still the ambiguity. The researcher has made the research to understand such doctrine and the way that the Courts in under various made an attempt to point out the application of the functionality under their laws. Finally has concluded with the suggestion to give some provisions under Intellectual Property Rights law to identify and give more clarity on the doctrine.

Hypothesis

Doctrine of Functionality is an important element under Intellectual Property Rights Law to determine whether the subject matter can be protected or not. However the concept of doctrine of functionality has not been stated clearly or directly as such under the provision of Intellectual Property Rights.

Chapterisation

Being the first chapter it provides a background to the research, stating the origination of the functionality doctrine also the purpose of such doctrine and also contains the research methodology. In the second chapter the discussion will be on the concept of doctrine of

functionality under Intellectual Property Rights in order to understand the feature of such doctrine in each field of Intellectual Property Rights law i.e. trademark, copyright, patent. Next in chapter three the discussion on the relevance between functionality feature and patent has been brought up. This chapter will give more detail on the application of such doctrine under patent law. Many patent cases from various jurisdictions of law i.e. US, EU, and India have been illustrated to find out how such doctrine has been applied. In the fourth chapter the functionality doctrine will be discussed in the aspect of copyright to help find out the copyrightable subject matter. The importance of idea-expression dichotomy and doctrine of separability will help to extract the statutory subject matter and then made such subject matter protectable. In this chapter five the doctrine of functionality will play very important role under trademark law to find out the protectable subject matter. And the last chapter essentially suggests some provision in various Intellectual Property Rights law especially under Indian Intellectual Property Rights which was the first initiative towards making India an adequate definition and the application of such doctrine. It is identified that the Intellectual Property Rights Act is not sufficient in the area of doctrine of functionality and so the researcher has made the suggestion on how the loops identified can be amended so that the Act is as per International standard.

Nature of Dissertation

This paper is analytical in nature and several books, articles, and Internet resources have been used for the purpose of illustrating the text and to bring out finer points for discussion.

Methodology

The methodology adopted in the research for preparation of this dissertation and the analysis drawn is based on both the primary source secondary source. However provision of law which has talked about the doctrine of functionality not only under Indian law but also under various laws is still ambiguous. So the researcher found that the understandings on such doctrine by some specialists are not clear. So the researcher also used the secondary source i.e. Books, Articles, Internet resources etc. This research adopted a combination of descriptive, comparative and analytical method. Every attempt has been made to acknowledge and understand more on doctrine of functionality. A list of selected books, articles, along with Internet sources are provided at the end of this dissertation for easy reference.

Mode of Citation

A uniform mode of citation is been followed throughout the course of the paper.

Limitations

This research is mainly focuses on the analysis of the doctrine of functionality adopted in US, EU, and Indian law. Doctrine of Functionality has been discussed briefly and more emphasis is made on the US and EU Intellectual Property Rights. Another limitation which the researcher came across was in the collection because there is no provision which has clearly stated the scope and concept of this doctrine directly.

Research Questions

1. What is the originality and purpose of doctrine of functionality?

2. What is doctrine of functionality?

3. How to apply doctrine of functionality under Intellectual Property Rights under the law of various countries?

4. Are there any loopholes in various Intellectual Property Rights law pertaining to doctrine of functionality?

5. Is doctrine of functionality the barrier of Intellectual Property Rights registration?

6. What are the criteria which Court applies to determine the functionality doctrine in each case of law?

7. What is the significance to refuse the registration of application which includes the doctrine of functionality?

CHAPTER 2

CONCEPT OF DOCTRINE OF FUNCTIONALITY

The origin of functionality doctrine lied in 1939 decision in *Imperial Tobacco and Co v. Registrar of the Trademarks*[27]. At issue was whether the plastic outer wrapper on a package of cigarettes could be registered as distinguishing guise. The Court denied the registration by stating that: ***".....any combination of elements which are primarily designed to perform a function.....is not a fit subject-matter for a trademark, and if permitted would lead to grave abuses."*** The grave abuses that the doctrine was developed to counter have been alternately described as 'restraint on manufacturing and trade[28]', 'unfairness' to the public if the patentee could, could after the expiry of the patent....give itself a monopoly over the shape[29]' and abuse of monopoly position in respect of product and processes'

[27] Imperial Tobacco and Co v. Registrar of the Trademarks, [1939] 2 D.L.R. 65 (Ex. Ct.).

[28] Remington rand Corp v. Philips Electronics NV (1995), 64 C.P.R. (3d) 467 (F.C.A.) [Remington Rand].

[29] Thomas Betts v. Panduit Corp. (2000), 4 C.P.R. (4th) 498 at Paras. 23-4 (F.C.A.)

Functional Feature in Patent Law

Under the United States law: Section 101 "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title".

First, Under Section 101 of the U.S. Law has defined that the inventions those are eligible for the patent protection are the machine, an article of manufacture, a composition or a process otherwise it cannot be patentable. **Second,** 35 U.S.C. 101 serves to ensure that patents are granted on only those inventions that are "useful." And the patent protection can be granted only to those inventions which have fulfilled such "useful" requirement under Section 101 of the U.S. law.

As we can see the utility requirement in the case of ***Brenner v. Manson***[30] which had a somewhat unusual fact pattern in that the question before the court was whether an affidavit, submitted in support of an application, showed that the party who filed it had in fact established a utility for the invention in question. The issue before the court related to the production of a compound that had no known utility, although utilities were known for related compounds (the compound in question was a steroid). The majority of the Supreme Court

[30] Brenner v. Manson 383 U.S. 519 (1966).

concluded that it did not matter whether an invention was for a product or a process and that in the chemical field unless a claim was for something that was shown to have a specific and substantial utility the metes and bounds of that monopoly are not capable of precise delineation. It may engross a vast, unknown, and perhaps unknowable area. Such a patent may confer power to block off whole areas of scientific development without compensating benefit to the public.

The basic *quid pro quo* contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility. Unless and until a process is refined and developed to this point- where specific benefit exists in currently available form- there is insufficient justification for permitting an applicant to engross what may prove to be a broad field.[31]

Currently Computer software is also becoming the proper subject for patent protection if it fulfills the requirements; "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof".[32] The most significant US decision in the Federal Circuit Court of Appeal's decision is ***State Street Bank and Trust Co v Signature Financial Group,***

[31] Richards John, *"United States Patent Law and Practice with Special Reference to the Pharmaceutical and Biotechnology Industries"*, Ladas and Parry LLP,
See, http://www.ladas.com/Patents/Biotechnology/USPharmPatentLaw/USPhar01.html., retrieved on 17/04/2010.

[32] Patent Act § 101, 35 U.S.C. § 101 (1988).

Inc.[33] which approved the patentability both of computer software and business methods. The invention was a data processing system, operating through a computer, to assist in the administration of invested funds. The court ruled that a mathematical algorithm was patentable provided it produced "a useful, concrete and tangible result". The claims were directed to "a data processing system for managing a financial services configuration of a portfolio established as a partnership, each partner being one of a plurality of funds" comprising a number of different "means for processing data". The result would allow the allocation of financial information to specific customers, such as gains and losses and thus to calculate the final share price. It was asserted that, since the claim was written in a means plus function form such as relating to a method for a specific purpose, it was related to a machine like computer. It was therefore not unpatentable as such.

Functionality Concept in Copyright Law

The unprotectable of idea is "trait to copyright law" and its distinction from expression is most difficult to ascertain. The idea-expression dichotomy is at the core of the copyright law and it developed as a means for putting limitations over functional claim of copyrighted works. The U.S. Constitution grants Congress the power ***"to promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive right***

[33] State Street Bank and Trust Co v Signature Financial Group, Inc., (149 F.3d 1368) (1998).

to their respective Writings and Discoveries"[34]. Under the United States law the copyright protection has been given to those creative works of authorship. Additionally the idea is excluded from getting the copyright protection. While pictorial, graphic, and sculptural works are entitled to protection, the design of a useful article shall be considered pictorial, graphic, and sculptural only if and only to the extent that such designs incorporates such pictorial, graphic, and sculptural features that can be identified separately from, and are capable of existing independently from, the utilitarian aspects of the article.

Copyright protection is generally not available to articles which have a utilitarian function. Under the Copyright Act, the only copyright protection available to these items is for "features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article." Unfortunately, this test is inherently ambiguous when deciding the scope of copyright protection for certain useful articles. However some distinctions are clear. For instance, a painting on the side of a truck is protectable under copyright law even though the truck is a useful article. The painting is clearly separable from the utilitarian aspects of the truck. The overall shape of the truck, on the other hand, would not be copyrightable since the shape is an essential part of the truck's utility. Or in the case of clothing, the print found on the fabric of a skirt or jacket is copyrightable, since it exists separately from the utilitarian nature of the clothing. However, there is no copyright in the cut of the cloth, or the design of the skirt or jacket as a whole, since these articles are utilitarian.

[34] Article-1, Section-8, Clause-8 of the Constitution of the United States of America

One of the primary purposes for prohibiting copyright protection in useful articles is to prevent the granting of patent-like protection through the copyright laws. If a useful article was protected under the copyright law, the protection against copying would be quite similar to patent protection. Since copyrights are so much easier to obtain than patents, there would be no way of limiting this patent-like monopoly to inventions that are truly novel and non-obvious. Another interesting copyright concern is the extent of copyright protection in pictorial or sculptural works that portray a useful article. Likewise a painting of a futuristic looking automobile, copyright protection would prevent the outright copying of the painting. In addition, copyright law would prevent the creation of a three-dimensional model of the automobile found in the painting.[35]

Under both the Indian and American systems of law, the protection available to a copyright-protected work is protection in respect of the *form and substance* of the work and not the *idea* behind the work. Therefore, applying this principle in the context of computer software, the owner of the copyright over an item of software has the right to prevent any other person from physically copying the code, as it is written, but does not have the right to prevent the utilisation of the idea behind the code, provided the person utilising this idea does so in a manner that is different from his arrangement of the code. Thus, it is necessary to note that unlike the case of a patent over a mechanical product, the copyright over an item of software code does not entitle the author to prevent another software developer from producing the same type of software in a different form and structure. However, at the same time, it needs to

[35] See, http://www.bitlaw.com/copyright/unprotected.html, retrieved on 14/05/2010.

be stated that the point where the idea translates itself into the expression of an idea is an issue that has been the subject of judicial scrutiny by courts in USA.

Functionality Doctrine in Trade Dress

Trade dress consists of the total image of a product or service, including, without limitation, such product features as design, size, shape, color, packaging, labels, color combination and graphics[36]. It is not an individual element that determines a product's trade dress, but the overall impression created by the product, package and advertising. Furthermore, as with a word asserted to be a trademark, the elements making up the alleged trade dress must be used in such a manner as to denote the source of the product.[37] When the only impact of a product feature is decorative and aesthetic, and not source-identifying, the product feature cannot be given exclusive rights under trade dress law[38].

[36] Vaughn Mfg. Co. v. Brikam Int'l Inc., 814 F. 2d 346 (7th Cir 1987).

[37] Libman v. Vining Indus., 69 F. 3d 1360 (7th Cir. 1995).

[38] Scola Jr. Daniel A. and Merkel Kellyanne, *"Trade Dress Can Coexist Easily with Design Patent: Courts Stress that the two are Nonintersecting IP subsets and Neither can Outweigh the Other"*, The National Law Journal, May 31, 1999.

However the courts have insisted that protected elements be limited to "nonfunctional" features. The reason for this limitation is an overriding public policy of preventing market monopolization. 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." Judicial inquiry is addressed to "whether the whole collections of elements taken together are functional." Although courts refuse to protect functional features, "functional elements that are separately unprotectable can be protected together as part of a trade dress. Unfortunately, there is no simple definition for "functional" because this area of law is still evolving. Generally, a functional feature is essential to the usability of a product. That is, the feature is necessary for the item to work. When the feature is not necessary for the item to work, it will be protected under trademark law. For example, the body of an electric guitar can be made in innumerable shapes. The design of these guitars may become a trademark because the design is not dictated by the ability of the guitar to function. The design may also be protectable as a design patent[39].

In 2001, the Supreme Court decided in ***TrafFix Devices v. Marketing Displays, Inc.***[40] The case concerned the doctrine of functionality, which bars trademark protection for functional product features. The functionality doctrine is intended to encourage legitimate competition by maintaining a proper balance between trademark and patent law. A mark is functional if it is essential to the use or purpose of a product or if it affects the cost or quality of the product.

[39]See, http://pikibook.com/law/intellectual-property/patent-copyright-trademark/what-cannot-be-protected-under-trademark-law, retrieved on 14/05/2010.

[40] TrafFix Devices v. Marketing Displays, Inc., 532 U.S. 23.

Functionality is particularly applicable to product configuration marks because product features and shapes are often related to the use, purpose or cost of manufacture of the product. The Supreme Court in *TrafFix* held that if the product features sought to be protected as a mark were the subject of an expired utility patent, this "adds great weight to the statutory presumption that features are deemed functional until proven otherwise" and that one who seeks such protection "must carry the heavy burden of showing that the feature is not functional."[41]

Actually there are two types of functionality doctrine, de jure and de facto. If the product or packaging performs the function that it is intended to perform. A COCA-COLA bottle's function is to hold COCA-COLA beverage and permit it to be poured out of the bottle, a job it certainly performs. But that does not make the bottle's shape or ribbing "functional" for trade dress purposes because those features are not necessary for the bottle to do its job. That is called as **"de facto functionality".** While another types of functionality is **"de jure functionality"** which states the feature of the product which the competitors must use to make the competition of the product. So the distinction between de jure functionality and de facto functionality is able to see from ***Inwood Laboratories, Inc. v. Ives Laboratories, Inc.***[42] which said that the distinction between de jure functionality and de facto functionality

[41] Darren W. Saunders, *"Product Configuration Trademarks - The Burdens and Benefits of Securing Protection In Product Designs"*, Published: June 01, 2006, The New York Law Journal.

[42] Inwood Laboratories, Inc. v. Ives Laboratories, Inc., 456 U.S. 844, 850-51 (1982).

determining the eligibility for the trademark protection or not have to look into that the design's effect on competition or not[43].

Another case which can give the clearer picture of de jure and de facto functionality is in ***Brunswick Corp. v. British Seagull Ltd***[44] which stated that "Competitiveness" included visual desirability in addition to the use, quality and cost of the product in Brunswick. There the trade dress sought to be registered was the color black for outboard motors. The color had no effect on either the cost of making the motors, on their quality or ability to function. But black was held to be de jure functional and unprotectable because black outboard motors are compatible with many boats' color schemes, and black makes the motors look smaller. Competitors' inability to use black would therefore decrease their ability to effectively compete, and trademark protection was held to be unavailable. Brunswick was decided on its facts. The Federal Circuit did not hold that color is always functional, and the Supreme Court has now expressly held that "the doctrine of `functionality' does not create an absolute bar to the use of color alone as a mark[45]

[43] Cynthia Clarke Weber, article on *"Trade Dress Basics"*.
See, http://www.sughrue.com/files/Publication/a5e682a6-09e8-4fb4-8d52-f3ba796ee215/Presentation/PublicationAttachment/28d42aa1-f2c4-4516-9a6c-f84323a0b1a7/tradedress.htm., retrieved on 12/03/2010.

[44] Brunswick Corp. v. British Seagull Ltd., 35 F.3d 1527, 1531 (Fed. Cir. 1994), cert pending, No. 94-1075.

[45] Cynthia Clarke Weber, article on *"Trade Dress Basics"*.
See, http://www.sughrue.com/files/Publication/a5e682a6-09e8-4fb4-8d52-f3ba796ee215/Presentation/PublicationAttachment/28d42aa1-f2c4-4516-9a6c-f84323a0b1a7/tradedress.htm., retrieved on 12/03/2010.

CHAPTER 3

IMPORTANCE OF FUNCTIONALITY FEATURE UNDER PATENT LAW

Under the United States law: Section 101 "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title".

Federal Courts had defined the two purposes of Section 101. **First,** Under Section 101 of the U.S. Law has defined that the inventions those are eligible for the patent protection are the machine, an article of manufacture, a composition or a process otherwise it cannot be patentable. **Second,** 35 U.S.C. 101 serves to ensure that patents are granted on only those inventions that are "useful." This second purpose has a Constitutional footing - Article I, Section 8 of the Constitution authorizes Congress to provide exclusive rights to inventors to promote the "useful arts." In the case of organisms which had been created artificially were not patentable as products until the Supreme Court's decision in ***Diamond v. Chakrabarty***[46], which held that a genetically-engineered bacterium was a "non-naturally occurring manufacture or composition of matter" entitled to product protection. The patent protection

[46] Diamond v. Chakrabarty, 447 U.S. 303 (1980).

can be granted only to those inventions which have fulfilled the requirement "useful" under Section 101 of the U.S. law.

Another case which based on the requirement of the patent protection, utility, is ***Brenner v. Manson***[47], which had a somewhat unusual fact pattern in that the question before the court was whether an affidavit, submitted in support of an application, showed that the party who filed it had in fact established a utility for the invention in question. The issue before the court related to the production of a compound that had no known utility, although utilities were known for related compounds (the compound in question was a steroid). The majority of the Supreme Court concluded that it did not matter whether an invention was for a product or a process and that in the chemical field unless a claim was for something that was shown to have a specific and substantial utility the metes and bounds of that monopoly are not capable of precise delineation. It may engross a vast, unknown, and perhaps unknowable area. Such a patent may confer power to block off whole areas of scientific development without compensating benefit to the public.

[47] Brenner v. Manson 383 U.S. 519 (1966).

The basic *quid pro quo* contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility. Unless and until a process is refined and developed to this point- where specific benefit exists in currently available form- there is insufficient justification for permitting an applicant to engross what may prove to be a broad field[48]. In this case the Patent Examiner denied Manson's application and this has been affirmed by the Board of Appeal. The ground for such refusal was the failure to disclose any utility for the chemical compound produced by the process.

Protection of Business Method and Computer Software

Currently Computer software is also becoming the proper subject for patent protection if it fulfills the requirements; "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof[49]." However laws of nature, natural phenomena, and abstract ideas are excluded from the patent protection. There has been much debate as to whether algorithms and computer programs are more like processes and

[48] Richards John, *"United States Patent Law and Practice with Special Reference to the Pharmaceutical and Biotechnology Industries"*, Ladas and Parry LLP,
See, http://www.ladas.com/Patents/Biotechnology/USPharmPatentLaw/USPhar01.html., retrieved on 17/04/2010.

[49] Patent Act § 101, 35 U.S.C. § 101 (1988).

machines, therefore eligible for patenting, or more like the laws of nature, therefore unpatentable.

The PTO allows the patenting of algorithms, but not mathematical formulas. It regularly applies a two-step test to determine whether an invention involving a computer program is directed to statutory subject matter. The first step is to decide if the claims in the patent directly or indirectly recite a mathematical algorithm. For example, if the claim contains words or equations that look like a mathematical formula, the claim recites a mathematical algorithm.

Secondly, the claim as a whole is analyzed to determine whether it preempts the "algorithm." The claims are looked at without the "algorithm" to see if what remains is otherwise statutory. If what remains is data gathering or non-essential post-solution activity, such as the transmission of data or the display of output, the claim is held to be non-statutory[50].

[50] Swinson John, *"Copyright or Patent or both: An Algorithmic Approach to Computer Software Protection"*, 5 Harv.J.L. & Tech. 145.

Software Patent Protection under US Law

In United States Supreme Court first addressed the patentability of computer software in ***Gottschalk v. Benson***[51]. The Supreme Court had held:

"Phenomena of nature, though just discovered, mental processes and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work."

The patent sought is on a method of programming a general-purpose digital computer to convert signals from binary coded decimal form into pure binary form. A procedure for solving the given type of mathematical problem is known as an "algorithm". In Gottschalk, the Supreme Court was faced with a patent claiming a mathematical formula, where the claims were not limited to: 1.) any particular art or technology; 2.) any particular apparatus or machinery; or 3.) any particular end use. The claim simply purported to cover any use of the claimed formula in association with a general purpose digital computer. The Court recognized that "while a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth

[51] Gottschalk v. Benson, 409 U.S. 63 (1972).

may be". The Court went on to hold that the mathematical formula involved in this case had no substantial practical application except in connection with a digital computer, which meant that if the patent is valid it would completely preempt the mathematical formula and in practical effect would be a patent on the algorithm itself. Therefore the patent in question, a patent on the conversion binary code into pure binary numbers did not stand[52].

The most significant US decision in the Federal Circuit Court of Appeal's decision is ***State Street Bank and Trust Co v Signature Financial Group, Inc.***[53] which approved the patentability both of computer software and business methods. The invention was a data processing system, operating through a computer, to assist in the administration of invested funds. The court ruled that a mathematical algorithm was patentable provided it produced "a useful, concrete and tangible result". The claims were directed to "a data processing system for managing a financial services configuration of a portfolio established as a partnership, each partner being one of a plurality of funds" comprising a number of different "means for processing data". The result would allow the allocation of financial information to specific customers, such as gains and losses and thus to calculate the final share price. It was asserted that, since the claim was written in a means plus function form such as relating to a method for a specific purpose, it was related to a machine like computer. It was therefore not unpatentable as such.

[52] Dr. J.K. Das, "*Intellectual Property Rights*", published by Kamal Law House, Kolkata, First Edition, 2008, p.272.

[53] State Street Bank and Trust Co v Signature Financial Group, Inc., (149 F.3d 1368) (1998).

The main question then was whether the claim related to an abstract concept. The court held again that mathematical algorithms were unpatentable as they were concepts disembodied from a useful purpose. Business methods had previously been excluded from patentability by the USPTO, but following the State Street Bank case it amended its examination guidelines to provide that claims to business methods are to be treated like any other process claims. Thus the transformation of data was considered patentable because it was considered to be a practical application of a mathematical algorithm. Similarly, a share price produced by a series of computerized computations was deemed to be useful and thus patentable. In essence, the patentability of methods now simply requires that such method - whether it is a concept as such or a concept embodied in a computer program - produces something useful and tangible. Effectively, this means that claims entailing any such result are registrable despite the fact that it concerns methods - in the form of either a business method or a computer program - as such.

Significantly, in the Federal Circuit decision in ***In re Bilski***[54] also relates to the software computer and business method. The Court held that the software and business methods are patentable as long as they:

(1) are tied to a particular machine or apparatus, or

(2) transform an article into a different state or thing.

[54] In re Bilski, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (Fed. Cir. 2008).

The *Bilski* court emphasized that the basis for this machine-or-transformation requirement is to prevent pre-emption of fundamental principles. In this regards, it was held that the "concrete, useful and tangible result" test formulated in *State Street Bank* was "inadequate" in determining whether a claim is drawn to a fundamental principle, or an application of it.

To satisfy the transformation requirement, the "article" must be a physical object or substance, or data representing thereof. Therefore, a method which merely transforms data representing abstract constructs such as business risks and legal obligations is not patentable.[55] It should be noted that the decision on Bilski only excludes the patentability of mere business methods, and clarifies that a business method or software can be a patentable subject matter so long as it passes the "machine-or-transformation" test.

[55]Siew-Lee Hew, *"Software and Business Method Patents: Not A Problem"*, fb rice & co, See, http://www.fbrice.com.au/servlet/Display?p=397., retrieved on 12/03/2010.

European Approach to Computer Programs

European Patent Convention: Section 52 "(1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;

(d) presentations of information.

(3) The provisions of paragraph 2 shall exclude patentability of the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.

(4) Methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body shall not be regarded as inventions which are susceptible of industrial application within the meaning of paragraph 1. This provision shall not apply to products, in particular substances or compositions, for use in any of these methods.

It is practical to cite that unlike the U.S., in Europe computer programs are not patentable by virtue of Article 52 of the European Patent Convention but computer software can be granted a patent if the software program brings about a technical effect or result and the program is not claimed "as such". The U.S. finds this "technical effect" as a very restrictive standard and their standard seems to be the "useful, concrete and tangible result".[56] An invention is excluded under Articles 52(2) and (3) EPC if it has no technical character. The requirement that an invention must be technical in some way is not present in the EPC. However, Rules 27(1) and 29(1) EPC seem to imply that there must be technical aspects to an invention. The Board of Appeals has consistently held that for an invention to be patentable, it must be technical in some way, based on the reasoning that the activities listed in Article 52(2) have in common that they imply something non-technical and that, therefore, an invention that is

[56] International Seminar on *"Protection of India's Intellectual Wealth in the New Millennium"* on 2nd & 3rd December, 2000.

technical is patentable[57]. An invention has a technical character if there are technical considerations involved.

The contribution approach is the contribution made by the invention technical which is used only for assessing inventive step. Technical considerations may lie either in the underlying problem solved by the claimed invention, in the means constituting the solution of the underlying problem, or in the (technical) effects achieved in the solution of the underlying problem. The very need for such technical considerations implies the occurrence of a technical problem to be solved and technical features solving that technical problem.

The technical character of an invention cannot be affected by the presence of an additional feature which as such would itself be excluded from patentability under Article 52(2) and (3) EPC. So, a combination of technical features and apparently non-technical features may still be patentable as long as the latter features contribute to an overall technical effect[58]. The

[57] In 2000, the EPC has been amended so as to include the requirement that the invention must be in a field of technology. This amended version has not yet entered into force.

[58] Computer programs are a special case. When loaded in a computer, a program causes the computer to exhibit certain behavior, which can be argued to constitute a technical effect, since a computer is a physical and technical apparatus. It then follows that any computer program has a technical character. However, this would render their exclusion under Articles 52(2) and (3) EPC meaningless.

technical effect" are patentable. This further technical effect should go beyond the normal interaction between software and hardware. It may for instance lie in the fact that it solves a technical problem. In determining whether claimed subject matter is excluded, it is to be noted that the exclusion of Articles 52(2) and (3) only applies to method claims and not to apparatus claims. An apparatus constitutes a physical entity or concrete product, and thus is an invention within the meaning of Article 52(1) EPC, even if the apparatus is adapted for performing or supporting an economic activity.

In the case of ***Vicom's Application***[59], computer operating program in an industrial technique. The EPO decided that:

"An invention relating to a computer program must make a technical contribution/constitute the solution to a technical problem in order to be patentable. In essence, it must have a technical character."

Likewise a claim is patentable to a computer so program or provided with hardware as to be able to process digital images in accordance with a given mathematical procedure expressed as an algorithm. The program had been developed for the computer aided design (CAD) of

[59] Vicom's Application, [1988] O.J. EPO 19.

engineering and similar products. And the application was upheld once the claim was amended so as to cover only uses which started with a computerized image: the original was for less specific methods of using the algorithm. This was allowed because he claim went to the general functioning of the computer rather than to an application designed to execute particular tasks. With this amendment the Board of Appeal could accept that it was sufficiently "directed to a technical process".

Another important case is ***IBM Application***[60], program for computer operating system. The program dealt with the manner of affecting the display on a computer screen which enabled one window when obscured by another to be brought forward or alongside the other window. The case was novel in that claims were allowed not just to a computer when so programmed but also to a product which held the program on any medium including the internet. While a claim merely to the method of programming would remain a computer program as such. The "potential technical character" possessed by a disk or tape of the program existed in its capacity for downloading into a computer. In consequence the program as sold commercially could be a direct infringement of the claim thus making a supplier liable without having to satisfy the conditions for "indirect" infringement. In that decision can be sensed a willingness to interpret the exclusion of computer programs narrowly so that European Patent law could go to some degree emulates the liberal practice of the US Patent Office.

[60] IBM Application, [2000], E.P.O.R.301 TBA.

The hardware approach, in a number of decisions, it has moved away from the technical character test and instead focused on whether the invention involved the use of or the interaction with any hardware. This approach was adopted in Hitachi Auction.

In the case of ***Hitachi Auction Method***[61], the claim both to a computer as programmed and a method of a programming a computer were made to the conduct of a Dutch auction like an auction in which the auctioneer names a high price, reduces it until he receives a bid and then calls for bids over the first bid until he reaches a highest offer. By providing with each bid a "desired price" there should also be stated a "maximum price", a mode was provided for resolving which of multiple bids at the same "desired price" should be preferred. The advantage of automation was that it could eliminate time lags that would otherwise occur, particularly if potential bidders were not all together. Taking the approach in the Pension Benefit Case one step further, the EPO Board of Appeal refused to distinguish between the two types of claim. Both those to the apparatus to function had a sufficiently technical character to be patentable. Only an abstract set of instructions fell to be treated as a "computer program as such".[62] Hence the Board of Appeals of the EPO denied the patentability of an auction method carried out by means of the Internet for lack of technical contribution to the prior art, significantly, patentability was not denied on the grounds that it did not represent a statutory invention.

[61] Hitachi Auction Method, T 0258/03: [2004] O.J. EPO 575. TBA.

[62] Cornish W., Llewelyn P., *"Intellectual Property: Patents, Copyright, Trademarks and Allied Rights"*, published by Sweet and Maxwell Ltd, London, 6th Edition, 2007, p. 827.

Software Patent Protection in India

Indian Patent Act: Section 2(1) (j) "invention means a new product or process involving an inventive step and capable of industrial application"

The Indian Patent Act, 1970 excludes plants and animals in whole from the patent protection. As per Section 3 (j) of the Act "plants and animals in whole or ant part thereof other than micro-organisms but includes seeds, varieties and species and essentially biological processes for production or propagation of plants and animal is not patentable. However, plant variety protection laws have been developed in almost all countries providing sui generis for agricultural and horticultural innovations. Patent protection was not originally considered to be a particular effective system for the protection of plant varieties. Prior to the development of modern biotechnology, the breeding of the new variety could not be said to involve an inventive step. Plant variety protection is highly specific to the variety and their scope is limited by reference to the propagating material itself. Most recently, the Calcutta High Court in ***Dimminaco AG v. Controller of Patents***[63] has examined the issue of patenting a living organism. The application was for a patent on a process that resulted in the manufacture of a live vaccine that was useful as a cure for infectious bursitis in poultry. The Patent Office had rejected the application as the vaccine was a living vaccine and that the definition of manufacture did not include a process that resulted in a living organism. The Calcutta High

[63] Dimminaco AG v. Controller of Patents, AID No. 1 of 2002, Calcutta High Court.

Court has set aside the decision of the Controller and found that the Patent Act did not prohibit the patenting of biotechnological inventions. As there is no statutory meaning of 'manufacture', the Court relied on the dictionary meaning of manufacture which does not exclude a vendible product containing. The Controller pursuant to the decision of the High Court has granted protection.

The Indian Patents Act, 1970 has excluded "a mathematical or business method or a computer per se or algorithm" from the list of patentable inventions. A mathematical algorithm is a procedure for solving a given mathematical problem. A mathematical algorithm per se is neither an artificially created state nor affairs nor is it something having "utility in the field of economic endeavor". A mathematical formula alone, sometime referred to as a mathematical algorithm, viewed in the abstract, is considered unpatentable subject matter. Courts have used the terms "mathematical algorithm", "mathematical formula", "mathematical equation", to describe types of non-statutory mathematical subject matter without explaining whether the terms are interchangeable or different. Even assuming the words connote the same concept, there is considerable question as to exactly what the concept encompasses. It will not have utility in the field of economic endeavor until it has been implemented. The non-patentability of computer program as such does not preclude the patenting of computer implemented inventions[64]. In the case of computer software and business method are patentable subject matter if they have a "technical character" and are directed to solving a technical problem.

[64] Dr. J.K. Das, "*Intellectual Property Rights*", published by Kamal Law House, Kolkata, First Edition, 2008, p.272.

CHAPTER 4

ROLE OF FUNCTIONALITY DOCTRINE UNDER COPYRIGHT LAW

The unprotectable of idea is "trait to copyright law" and its distinction from expression is most difficult to ascertain. The idea-expression dichotomy is at the core of the copyright law and it developed as a means for putting limitations over functional claim of copyrighted works. The U.S. Constitution grants Congress the power ***"to promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive right to their respective Writings and Discoveries"***[65]. Under the United States law the copyright protection has been given to those creative works of authorship. Additionally the idea is excluded from getting the copyright protection. While pictorial, graphic, and sculptural works are entitled to protection, the design of a useful article shall be considered pictorial, graphic, and sculptural only if and only to the extent that such designs incorporates such pictorial, graphic, and sculptural features that can be identified separately from, and are capable of existing independently from, the utilitarian aspects of the article.

[65] Article-1, Section-8, Clause-8 of the Constitution of the United States of America

Under Section 101 of US Copyright Act has defined the term "useful article" which means an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information. An article that is normally a part of a useful article is considered a "useful article"[66]. In such case "doctrine of separability" will play an important role to decide whether the design of the useful article will get the protection under copyright law or not.

Doctrine of Separability

A determination of separability, either physical or conceptual, is a prerequisite or precondition to get the copyright protection for the design of a useful article. In the legislation scenario, the separability inquiry asks whether the aesthetic features of a useful article can be identified separately from, and can exist independently of, the work's utilitarian functions.

In 1954, the Supreme Court of the United States decided ***Mazer v. Stein***[67]. While decided well before the adoption of the 1976 Act, Mazer is essential to any discussion of separability because the 1976 Act essentially codified the holding in Mazer. In Mazer, the respondents

[66] Martin P. Michael, article on "*US COPYRIGHT LAW–SEPARABILITY/FUNCTIONALITY: A big hurdle for most industrial designs*". Sonnenschein Nath Rosenthal LLP.

[67] Mazer v. Stein, 347 U.S. 201 (1954).

(the plaintiffs in the district court) manufactured and sold lamps. One of them created original sculptures of dancing men and women. The respondents successfully registered the statuettes, without any lamp components added, with the Copyright Office as "works of art" under the Copyright Act of 1909. They sold the statuettes throughout the United States, both as lamp bases and as statuettes on their own, though sale as lamp bases constituted all but an insignificant portion of the sales. The defendants as lamp manufacturers also copied the statuettes and sold them as lamp bases.

The Supreme Court concluded that the statuettes were eligible for copyright protection. In doing so, the Court rejected the petitioner's argument that enactment of the design patent laws denies protection to artistic articles embodied in manufactured articles. It held that the statuettes could be copyrighted regardless of patentability. The Court also explained that the use or intended use of the statuettes in lamp bases did not bar their subsequent registration as copyrightable works of art. Finally, the Court approved of a Copyright Office regulation that allowed protection as works of art for "works of artistic craftsmanship, in so far as their form but not their mechanical or utilitarian aspects are concerned." Mazer, paved the way for the separability doctrine and the cases applying it. The holding, including the Court's approval of the regulation, suggests that the Court believed that useful articles are copyrightable despite their utilitarian features.

After Mazer, the Copyright Office promulgated a new regulation to implement the holding. This regulation, which contains some language eventually adopted in Congress's definition of PGS works in the 1976 Act, still failed to draw a clear line for copyright protection of useful articles.

Soon after the Copyright Act of 1976 took effect, the United States Court of Appeals for the Second Circuit began developing the conceptual separability doctrine. Over the course of several years, the Second Circuit formulated a standard for conceptual separability, although that circuit found it difficult to apply. Then, over twenty-five years after the 1976 Act took effect, the conceptual separability doctrine again made waves in the intellectual property law community.

In 2004 doctrine of separability came back again with ***Pivot Point International v. Charlene Products, Inc***,[68] the Seventh Circuit applied the Second Circuit's test and determined that the design of a mannequin head meant to depict a fashion model satisfied conceptual separability because the designer's judgment was unaffected by functional concerns. In 2005, the Fifth Circuit has come up with the opinion in ***Galiano v. Harrah's Operating Co.***[69], holding that creatively designed casino uniforms failed to satisfy the conceptual separability requirement. It did so, however, by applying a very different test from the one adopted by the Seventh

[68] Pivot Point International v. Charlene Products, Inc,372 F.3d 913 (7th Cir. 2004).

[69] Galiano v. Harrah's Operating Co., 416 F.3d 411 (5th Cir. 2005).

Circuit in Pivot Point, focusing on the marketability of the uniforms absents their utilitarian function[70].

The doctrine of Idea Expression Dichotomy is very important to separate between the expression of idea and ideas itself which cannot be protected. And this doctrine is still making the hundred questions which are waiting for the definite answer, the "ideas" that are the fruit of an author's labors go into the public domain, while only the author's particular expression remains the author's to control. It is often said that copyright subsists in the expression of idea and not the idea itself.

Idea Expression Dichotomy

Under U.S. law Section 102 (b) of the Act of 1976 which read thus: "In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery regardless of the form in which it is described, explained, illustrated, or embodied in such work."

[70] Barton Keyes, "*Alive and Well: The (Still) Ongoing Debate Surrounding Conceptual Separability in American Copyright Law*".

In U.S.A the idea expression dichotomy have been originated in United States Supreme Court from the landmark case of ***Baker v. Selden***. In 1895 the testator of the complainant in this case, Charles Selden, took the requisite steps for obtaining the copyright of a book entitled "Selden's Condensed Ledger, or Book-keeping Simplified," the object of which was to exhibit and explain a peculiar system of book keeping. In 1860 and 1861, he took the copyright of several other books, containing addition to and improvement upon the said system. The bill of the complaint was filed against the defendant, Baker, for an alleged infringement of these copyrights. The latter in his answer, denied the Selden was the author or designer of the books, and denied the infringement charged, and contend on the argument that the matter alleged to be infringed is not a lawful subject of copyright.

Selden got the protection under the copyright in a book which disclosed his particular bookkeeping system. The book contained forms "consisting of ruled lines, and headings, illustrating the system and showing how it is to be used and carried out in practice." Baker published a book on accounting, which "used a similar plan so far as results are concerned; but made a different arrangement of the columns, and used different headings." The complainant alleged Baker had *used* Selden's *system* of accounting, but did not allege that Baker had actually copied the particular forms contained in Selden's book. It becomes an important to determine whether, in obtaining the copyright of his books, he secured the exclusive right to the use of the system or the method of book keeping which the said books are intended to illustrate and explain. It is contended that he has secured such exclusive right, because no one can use the system without using the substantially the same ruled lines and

heading which he has appended to his books in illustration of it. In other word it is contended that the rue lines and headings, given to illustrate the system, are a part of the book, and as such, are secured by the copyright; and that no one can make or use similar ruled lines and headings, or rule lines and headings made and arranged on substantially the same system, without violating the copyright. And this is really the question to be decided in this case[71].

The Supreme Court concluded that Selden had no exclusive rights under the copyright laws to prevent the use of the accounting system. The Court noted that "there is a clear distinction between the books, as such, and the art which it is intended to illustrate." Thus the book itself could be protected as copyright work but the art which used to explain could not be protected. Under India law scenario, Indian Court also had discussed the idea-expression dichotomy in ***Zee Television Ltd. v. Sundial Communication Pvt. Ltd.***[72] In this case there was an allegation that the plaintiff developed the original concept for the serial "Krish Kanhaiyya". The concepts generated are expressed through concept notes, character sketches, detailed plots and episodes, main story lines that are put down in writing. The original concept of such written expression was registered with Film Writers Association. This was discussed with the defendant for the production and broadcast in Zee television channel. But since there was no positive response from the defendant in the plaintiff decided to give the script to Sony Entertainment Television. The plaintiff had later got to know that the defendants were producing the serial based on the same concept. They also registered the title with the Motion

[71] Rochelle Cooper Dreyfuss and Roberta Rosenthal Kwall, Intellectual Property Trademark, Copyright, and Patent law, published by New York foundation press, 1996, P.p. 292-296.

[72] Zee Television Ltd. v. Sundial Communication Pvt. Ltd.2003 (5) BomCR 404, 2003 (3) MhLj 695.

Picture Association and started advertising promotional materials. Knowing this Sony refused to sign the contract with the plaintiff. The defendant started broadcasting the serial "Kanhaiyya" based on the same concept. The present suit by the plaintiff is for breach of confidence and infringement of copyright. The defendants contended that though the concept had some similarity, however, their production was substantially different from that of the plaintiff. They also argued that they received the similar script from another person at the same time and they decided to accept that instead of the one given by the plaintiff.

The court after examining the facts found that there existed the relationship of confidentially between the parties though there was written agreement and defendant violated the same. It was evident from the fact that the plaintiff registered their detailed written concepts with the Film Writer Association. But it was not clear whether the practice was to keep this in confidence by the association till the film was produced. If it was not so it was difficult to appreciate how the principle of confidentiality could be applied to this case since the story was available to the members for the examination.

On the issue of the copyright infringement the court after examining the script of the plaintiff and the first of the defendant applied the test laid down in R.G. Anand and concluded that there was infringement of copyright. The observation of the court is worth quoting: "Having considered two works involved in this case not hypocritically and with meticulous scrutiny but by the observations and impression of averaged viewer, we find that striking similarities

in to works cannot in the light of the materials placed on record be said to constitute mere chance. We feel that the only inference that can be drawn from the material available in record is unlawful copying of the plaintiff's original work. The counsel for the plaintiff submitted and not without the sufficient force that if the concept of Lord Krishna in child form is removed from the serial of the defendants, their programme would become meaningless. In order to find out similarity in the two concepts what is to be seen in the substances, the foundation, the kernel and the test as to whether the reproduction is substantial is to see if the rest can stand without it. If it cannot, then even if much dissimilarity exists in the rest, it would nevertheless be a substantial reproduction liable to be restrained...."

It appears that the court is giving more emphasis to the substantial similarities in the concept rather than in the form in which the parties express it. Though the court following the ratio in R.G. Anand held that idea/concept is not protected under copyright, the decision seems to be influence by similarities of the concept of both parties. It is true that R.G. Anand stressed on the expression of the viewers as the surest test to find out substantial copying of the expression. But the court qualified it with the necessity of looking into the similarities and dissimilarities in the form in which the idea/concept is expressed. The Supreme Court also cautioned that when the concept is same there are bound to be similarities. In such cases it was laid down in R.G. Anand that the court should determine whether or not the similarities are on fundamental or substantial aspects of the mode of expression adopted in the copyrighted work". This is clearly to ensure that the idea is not protected if the similarities are essential for the expression of the idea. It appears that it is the failure of the Zee Television.

Court to appreciate this part of the ration in R.G. Anand that resulted in the above observation giving an impression that the concept of Lord Krishna is protected and not the form in which it was presented by the plaintiff. The court seems to be influenced by the economic rational applied by the Delhi High Court in Anil Gupta v. Kunal Das Gupta[73].

Computer Software Protection

Application of idea-expression dichotomy in the case of computer software is also very interesting. Such dichotomy cannot be the bar for getting the protection of the computer software. However to know what is "computer software' is very crucial. Computer Software is a typical, modern computer consists of a central processing unit (CPU), which stores information in internal memory, and a device, such as a disk, which stores information externally and transfers it to and from the internal memory[74]. A computer reduces symbols such as numbers, words, or even designs into a series of coded digits that can be manipulated efficiently and accurately at very high speeds[75]. The instructions a computer receives to perform symbolic tasks and to manipulate symbols in a specified order are collectively known

[73] Dr. J.K. Das, *"Intellectual Property Rights"*, published by Kamal Law House, Kolkata, First Edition, 2008, P.p.100-104.

[74] Menell S. Peter, *"Tailoring Legal Protection for Computer Software"*, 39 Stan.L.Rev. 1329, 1333 (1987). See generally Dennis Longley & Michael Shain, Dictionary of Information Technology (2d ed. 1986).

[75] Cline Dennis, *"Copyright Protection of Software in the EEC: The Competing Policies Underlying Community and National Law and the Case for Harmonization"*, 75 Cal.L.Rev. 633, 641 (1987).

as a computer program. In legal terms, a computer program consists of "a set of instructions capable, when incorporated in a machine-readable medium, of causing a machine having information-processing capabilities to indicate, perform or achieve a particular function or task." Programs, or "software," differ from the electronic components, or "hardware", which run programs[76].

Some of the early copyright cases, from which the idea-expression dichotomy developed, purported to establish a true dichotomy between the idea and the expression of a copyrighted work. Copyright in the early days protected only against literal copying, and not against a more abstract taking of a copyrighted work[77]. At its most concrete level, a work was protected by copyright; but at some level of abstraction, it became more of an "idea," to which the protection of copyright did not extend. The abstractions test was significant because copyrighted works were given protection on some level of abstraction, although that protection did not extend to the greatest level of abstraction.

[76] Magrab Brendan E, *"Computer Software Protection in Europe and the EC Parliamentary Directive on Copyright for Computer Software"*, 23 Law & Pol'y Int'l Bus. 709.

[77] Judge Learned Hand explained the idea-expression dichotomy by means of a less precise "abstractions" test. He stated: "Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out." Judge Hand's abstractions test thus has expanded the eligibility for copyright by protecting those works that might be somewhere along the continuum between the expression and the idea of a work.

In 1980, Congress implicitly confirmed the copyrightability of computer programs. Congress amended section 101 of the Copyright Act to define ***"'computer program"' as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result,"'*** and rewrote section 117 of the Act to specify certain rights available to program users that would have been unnecessary if programs were not protected by copyright.

However the courts will decide whether to give the protection to the computer program or not because Congress does not explicitly stated that all types of programs were protected or elaborated upon the scope of rights in computer programs. Generally, the courts have decided in favor of broad rather than narrow protection. And we can see clearly in the case of Third Circuit decision in Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc. However before Whelan, the Third Circuit in Apple Computer, Inc. v. Franklin Computer Corp. broke new ground by becoming the first appellate court to hold squarely that copyright protection is available for "operating system"' programs that manage internal computer functions. Previously, in Williams Electronics, Inc. v. Artic International, Inc.[78], the same court had removed doubts surrounding the copyrightability of object code computer programs and programs embodied in read only memory (ROM) chips.

[78] Williams Electronics, Inc. v. Artic International, Inc., 685 F.2d 870 (3d Cir. 1982).

Although the copyrightability is possible in the case of the computer programs as it is shown in the case of Apple and Whelan, the question remains about the scope of the protection. Would a copyright prevent an infringer from appropriating limited portions of a program? Would a copyright protect program structure--the arrangement of routines or logic flow--or would it prevent only copying the literal code? The Third Circuit has again taken the lead by unambiguously finding infringement when a program copies the "overall structure"' of another, copyrighted program, even without copying or directly translating literal code.

In Whelan, the Third Circuit held ***"that . . . copyright protection of computer programs may extend beyond the programs' literal code to their structure, sequence and organization."*** In reaching this conclusion, the court had to dispose of several legal arguments presented by Jaslow, the most substantial of which was that the structure of the computer program--the logical sequencing of subroutines and statements--was the programmer's "idea."' Because copyright protects only an author's expression of an idea, and not the idea itself, Jaslow argued that it could not infringe by taking only the program's structure. The court announced that "the purpose or function of a utilitarian work would be the work's idea, and everything that is not necessary to that purpose or function would be part of the expression of the idea."

The court reasoned that the function of Dentalab "was to aid in the business operations of a dental laboratory"' and that the structure of Dentalab was not the only way to perform that function. Accordingly, the court found that Dentcom infringed upon Dentalab.

Computer Software Protection under India Copyright Law

In India the Copyright Act, 1957 extends protection to computer program under the category of literary works provided they constitute 'original literary works'. The word "computer" and "computer program" have been graciously defined. Section 2(ffc) defined computer program thus Computer program means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result; Firstly, the fact that computer programs are utilitarian works is well imbibed in the definition by using the words "a set of instructions" and capable of causing a computer to perform a particular task for achieve a particular result." Secondly, the word "expressed" asserts that even while utilitarian works are given protection, such protection only extends to its expression. Thus the concept of idea-expression dichotomy is advanced. Thirdly, the use of words, "form" and 'medium" makes a fixation requirement. Next the terms "words, codes, schemes, or in any other form" and "including a machine readable form" cover protection for both source code and the object code[79].

[79] Pai, Yogesh A, *"Copyright for Computer Programs: Walking on One Leg?"*, Journal of the Indian Law Institute, Vol. 48, No. 2, 2006, P.p. 375-377.

Computer Software Infringement

When the owner has the right on his or her own copyrighted work, then others cannot exercise such exclusive right of the owner without the consent or permission otherwise it is amount to the infringement of the right of the owner. Additionally such infringement need not be intentional. Copyright owners usually prove infringement in court by showing that copying occurred and that the copying amounted to impermissible appropriation. To find out such infringement, the comparison between the copyrighted work and the alleged work becomes very significance. In several recent cases, federal courts have considered how existing copyright law should be applied to contested claims of infringement of a software copyright.

SAS Institute, Whelan, and Q-Co Industries are cases which have strikingly similar fact patterns. In each case, the plaintiff was the proprietor of a commercial program to which the defendant gained access pursuant to a confidential relationship; the defendant produced a competing program that closely resembled the plaintiff's in structure and function, although (in two of the cases) not at the computer code level; and the defendant claimed that its competing system, despite its functional similarity to the plaintiff's, was the product of independent creation. Thus, each case compelled the court to assess the legal significance of similarities lying somewhere between the code level and the functional level i.e., to define the boundary between idea and expression in the software context.

Computer Associates v. Altai[80]

In this case, OSCAR 3.5 was the product of Altai's carefully orchestrated rewrite of OSCAR 3.4. None of the ADAPTER source code remained in the 3.5 version; thus ALTAI made sure that the literal elements of its revamped OSCAR program were no longer substantially similar to the literal elements of Computer Associate's ADAPTER source code. While examining the question as to whether ALTAI'S OSCAR 3.5 was substantially similar to Computer Associate's ADAPTER program, the following points were established by the court in *Altai case*[81]:

It is essential for protection of literary property that copyright cannot be limited literally to the text, else, a plagiarist would escape by making immaterial variations. Thus, where "the fundamental essence or structure of one work is duplicated in another", courts have found copyright infringement. Those aspects of a work which "must necessarily be used as incident

[80] Computer Associates v. Altai, 982 F 2d 693.

[81] As is well understood, the term "software" is used to describe all of the different types of computer programs. Computer programs are basically divided into "application programs" and "operating system programs". Application programs are designed to do specific tasks to be executed through the computer and the operating system programs are used to manage the internal functions of the computer to facilitate use of application program. These two types of programs can be written in three levels of computer language—high level, low level and lowest level. High-level languages consist of English words and symbols and are easy to learn. Lower-level language is assembly language which consists of alphanumeric labels. This language is also easily understandable by the programmer. Statements of these two languages are referred to as written in *source code*. The third, lowest-level language, is the machine language. This is a binary language using two symbols '0' and '1' called "bits". This is the only language which can be followed by the machine but very difficult for the programmer to utilise. Statements in machine language are referred to as written in "object code". N.S. Gopalakrishnan: *Intellectual Property and Criminal Law*, pp. 159-60 (1994). It is well established that copyright protection extends to a program's source and object codes.

to" the idea, system or process that the work describes, are also not copyrightable. Therefore, those elements of a computer program that are necessarily incidental to its function are similarly unprotectable.

The court in *Altai*1 has specifically dealt with copyrightability of computer software based on material found in the public domain. Such material is free for the taking and cannot be appropriated by a single author even though it is included in a copyrighted work. Quoting this general rule of copyright, the court stated that it found no reason to make an exception to this rule for elements of a computer program that have entered the public domain. Thus, a court must also filter out material available in the public domain before it makes the final inquiry in its substantial similarity analysis.[82] A three-stage test was therefore formulated in order to determine whether the non-literal elements of two or more computer programs are substantially similar:

(i) The abstraction test

In ascertaining substantial similarity under this approach, a court would first break down the allegedly infringed program into its constituent structural parts. The abstraction test

[82] Nair Promod, *"Copyright Protection for Computer Software"*, BA, LLB (Hons.) (NLSIU), LLM (Cantab.), Advocate, High Court of Karnataka.
See, http://www.ebcindia.com/lawyer/articles/2004_7_31.htm, retrieved on 16/04/2010.

"implicitly recognises that any given work may consist of a mixture of numerous ideas and expressions". As applied to computer programs, the abstraction test will comprise the first step in the examination for substantial similarity. Initially, in a manner that resembles reverse engineering on a theoretical plane, a court should dissect the allegedly copied program's structure and isolate each level of abstraction contained within it. This process begins with the code and ends with an articulation of the program's ultimate function. Along the way, it is necessary to retrace and map each of the designer's steps in the opposite order in which they were taken during the program's creation.

(ii) The process of filtration

Then, by examining each of these parts for such things as incorporated ideas, expression that is necessarily incidental to those ideas and elements that are taken from the public domain, a court would then be able to sift out all non-protectable material. Strictly speaking, such filtration serves "the purpose of defining the scope of the plaintiff's copyright". Under the doctrine of incorporation/merger, "where there is essentially only one way to express an idea, the idea and its expression are inseparable and copyright is no bar to copying that expression" Under these circumstances, the expression is said to have "merged" with the idea itself. In order not to confer a monopoly of the idea upon the copyright owner, such expression should not be protected.

Appropriable elements are broken down into three categories: those "dictated by efficiency," "dictated by external factors," or "taken from the public domain." The first two relate closely to the merger doctrine.

Elements dictated by efficiency: *Altai* holds that when "efficiency concerns...so narrow the practical range of choice as to make only one or two forms of expression workable options," there is merger. Consistent with the court's "abstraction" inquiry, this doctrine applies to design choices embodied at various layers of the application, from the structure of the code to the operation and visual layout of the interface. The question central to this inquiry, according to the court, is "whether the use of *this particular set* of modules is necessary to efficiently implement that part of the program's process being implemented." If so, "it should be disregarded in the overall substantial similarity analysis."

Elements dictated by external factors: By analogy to the *scenes a faire* doctrine, the *Altai* court directed that "elements dictated by external factors" should be "filtered out of the infringement analysis," noting that it would be "virtually impossible to write a program to perform particular functions in a specific computing environment without employing standard techniques." The decision also lists "the mechanical specifications of the computer on which a particular program is intended to run; compatibility requirements of other programs with which a program is designed to operate in conjunction; computer manufacturers' design

standards; demands of the industry being serviced; and widely accepted programming practices within the computer industry" as examples of "extrinsic considerations" which constrain "a programmer's freedom of design choice" and may negate an inference of copying.

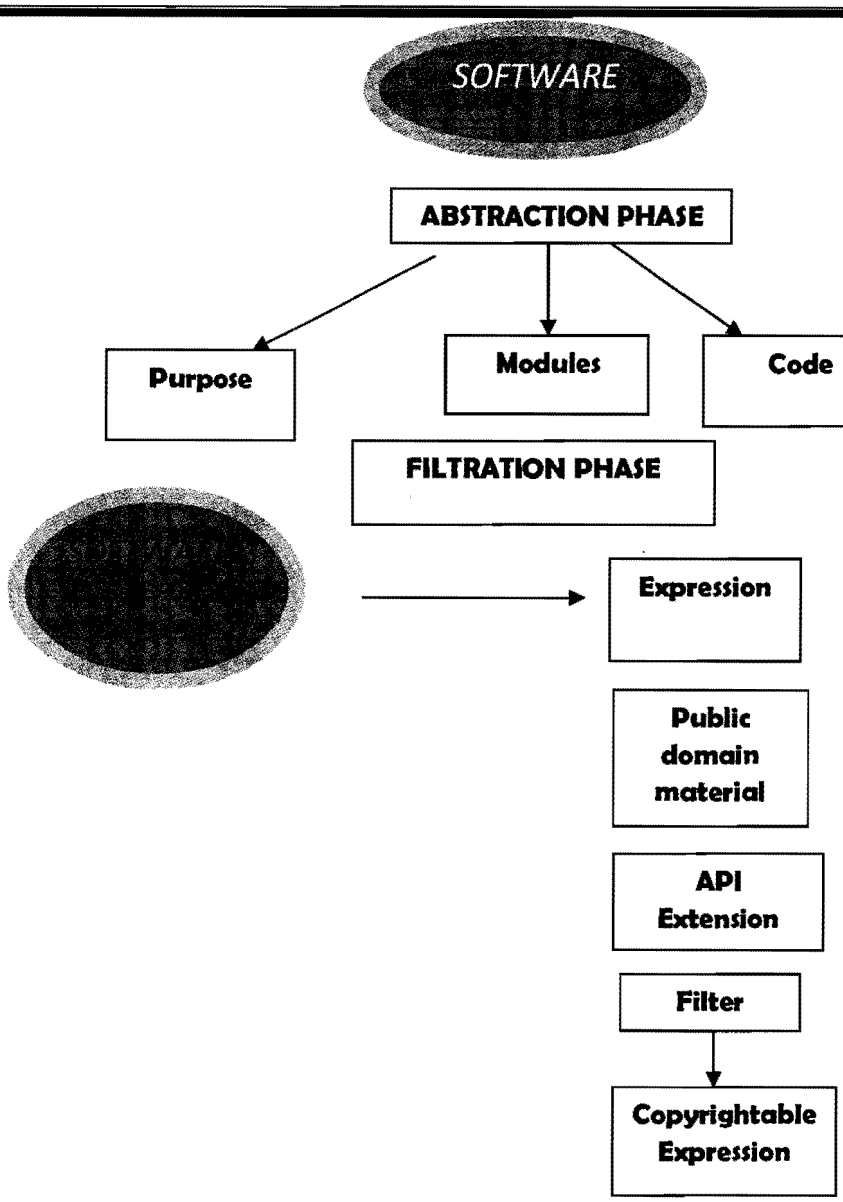
Elements taken from the public domain: In addition to functionally necessary elements, the Second Circuit directed in *Altai* that "elements taken from the public domain" should be excluded from the infringement analysis. The decision refers in particular to "computer program[s] that have entered the public domain by virtue of freely accessible program exchanges and the like" and "expression that is, if not standard, then commonplace in the computer software industry." The structural elements of a program which survive filtration are those which are original[83].

(iii) Comparison

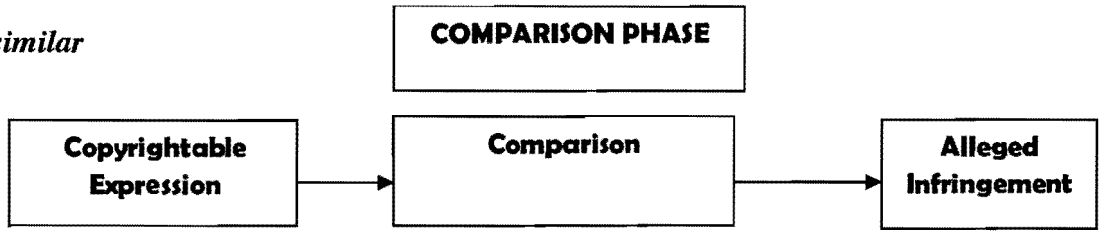
Left with a kernel, or possibly kernels, of creative expression after following this process of elimination, the court's last step would be to compare this material with the structure of an allegedly infringing program. Once a court has sifted out all elements of the allegedly infringed program which are "ideas" or are dictated by efficiency or external facts, or taken

[83] See, http://www.softwarefreedom.org/resources/2007/originality-requirements.html, retrieved on 16/04/2010.

from the public domain, there may remain a core of protectable expression. The result of this comparison will determine whether the protectable elements of the programs at issue are substantially similar so as to warrant a finding of infringement.



Compare those elements that survive the filtration process and ask are they substantial similar



The Court applied its new AFC text to the two programs and held that the non-literal elements of Altai's program were not substantially similar to the program copyrighted by Computer Associates. Infringement was not found.

Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.[84]

In Whelan, defendant Jaslow originally engaged Whelan's employer to develop a laboratory management program for an IBM minicomputer. Whelan went into business for herself and eventually acquired the copyright in this version of the program. Without authorization from Whelan, Jaslow then commissioned the preparation of another version of the program to run on IBM Personal Computers (PCs). The two versions were virtually identical in mode of operation and functions performed.

In affirming the district court's finding of infringement, the court of appeals made two significant legal points. First, it dismissed the ordinary lay observer standard as being "of doubtful value in cases involving computer programs on account of the programs' complexity and unfamiliarity to most members of the public," and thereby opened the door to expert testimony on all issues. Second, the court held that a finding of substantial similarity could be predicated solely on a showing of organizational similarity, in the absence of evidence of literal similarity at the code level. The court based the latter holding on a lengthy technical and economic analysis of the process of writing software, an analysis clearly influenced by the views of the competing experts. An important implication of the decision is that drawing the line between idea and protected expression in particular cases is a fact-specific process

[84] Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc., 797 F.2d 1222 (3d Cir. 1986), cert. denied, 107 S.Ct. 877 (1987).

and that experts can play a crucial role in reconstructing and interpreting the relevant facts.

So from this case we can see that there is the Whelan test which has laid down the principal that the non-literal elements of computer programs was entitled to copyright protection as literary works, is acceptable. A computer program's ultimate function or purpose is the composite result of interacting subroutines. Since each subroutine is itself a program, and thus, may be said to have its own "idea", Whelan's general formulation that a program's overall purpose equates with the program's idea is descriptively inadequate.

Q-Co Industries, Inc. v. Hoffman[85]

In the third case in the trilogy, the owner of the copyright in a program that permits a personal computer to be used as a teleprompter unsuccessfully sought a preliminary injunction against two former employees who had developed a competing program. Plaintiff Q-Co originally hired the defendants to create a teleprompter program for the Atari computer. While at least one of two defendants was still working on the Atari program, they began to work independently on an IBM PC version at the suggestion of a Q-Co customer and ultimately produced a demonstration program.

[85] Q-Co Industries, Inc. v. Hoffman, 625 F.Supp. 608 (S.D.N.Y. 1985).

In finding insufficient evidence of infringement to support an injunction, the court carefully dissected the testimony of the plaintiff's expert. The expert had testified that although the programs were written in different languages, they were as similar in structure as to prompt the inference that the defendants' program was a "conversion" which presumably infringed the plaintiff's copyright. The court rejected this testimony, noting that the language difference precluded direct copying, emphasizing the lack of evidence of use of the plaintiff's materials, and concluding that the structural similarities that existed between the plaintiff's and defendants' programs could be attributed to functional imperatives.

CHAPTER 5

APPLICATION OF DOCTRINE OF FUNCTIONALITY UNDER TRADEMARK LAW

Section 2(1)(m) of the Indian Trade Marks Act, 1999 (the Act) as: 'Mark' includes a device, brand, heading, label, ticket, name, signature, word, letter, numeral, shape of goods, packaging or combination of colors or any combination thereof.

As we can see from the definition of "mark" which has included three categories of the mark like 'shape of goods', 'packaging', and 'combination of color'. These three types of mark which can acquire the protection under the trademark act were no not there in the previous Act. These marks have been called as non-conventional trademarks while other types of marks are called as conventional trademarks. And with the new technology, marketing techniques and also the highly competition of the advertising strategies also include sound marks, odor marks, taste marks, touch marks, motion marks and hologram marks. Another term for shape of goods, packing, and combination of color is ***"Trade Dress"***

The concept of trade dress started in U.S.A. Initially it was limited to the overall appearance of labels, wrappers, and container used in packing the product. The plaintiff used to define a list of discrete elements which make up the appearance of a container or package in which the product is distributed and sold in the market. It is the plaintiff who defines what the trade dress that allegedly has been infringed is. Under the Lanham Act, the plaintiff in a trade dress action can seek trade dress protection for whatever products or packaging it sees fit. In course of time the definition included the totality of any elements in which a product or service is packaged or presented. Those elements combined to create the whole visual image presented to customers. They are capable to acquire the exclusive right because of indicating the source of goods or service. This definition included a distinctive décor, menu and style of a restaurant. This definition was further expanded to encompass a third type of the trade dress, that is, the shape and the design of the product itself. In all these types of trade dresses it became necessary for the parties and court to define a list of exactly what are the elements that constituted the alleged trade dress[86].

There is a case study which the U.S. Court has stated the requirement or the limitation of the trade dress protection in ***Grey et. al vs. Meijer, Inc.*** in this case the plaintiff had marketed popcorn under the brand "The Popcorn Shoppe" and the bag containing the product had a design incorporated into the bag, which the plaintiff claimed that it was distinctive and should

[86] P. Narayanan, *"Law of trademarks and Passing off"*, published by Eastern Law House, Kolkata, Sixth Edition, 2004, P.p. 978-979.

get the protection under the trade dress law. Defendant's[87] private label popcorn packaging was in some respects similar to that of plaintiff's packaging and thus the issue thus was whether or not the plaintiff had any protectable rights in its "trade dress"[88]

The Court stated the general rule regarding protection of trade dress. It stated in part:

"The Lanham Act's protection of registered trademarks also extends to unregistered trade dress. To recover for trade dress infringement under § 43(a) of the Lanham Act, 15 U.S.C. § 1125(a), a plaintiff must prove by a preponderance of the evidence: (1) that its trade dress has obtained "secondary meaning" in the marketplace; (2) that the trade dress of the two competing products is confusingly similar; and (3) that the appropriated features of the trade dress are primarily nonfunctional".

a.) The Court had come to the point that the product did not acquire the secondary meaning. Also the Court pointed that the packaging and was not unique or distinctive. Although the plaintiff had contended that there was the term "Chicago Style" in its packaging which leads to the unique and the defendant also used such term. Thus there is the likelihood of confusion

[87] The defendant, which operated retail stores, originally marketed plaintiff's popcorn in addition to defendant's own private label brand of popcorn but eventually, plaintiff's line was discontinued due to poor sales.

[88] Ivan Hoffman, article on the "*protection of trade dress*", B.A., J.D.

to the public. However the Court said that such term was not distinctive or unique because it was applied by other products also. So there are some factors which preclude the protection of the trade dress i.e. functionality, distinctiveness or acquiring secondary meaning, and likelihood of Confusion

Types of Functionality Doctrine under Trade Dress

Actually there are two types of functionality doctrine, de jure and de facto. If the product or packaging performs the function that it is intended to perform. A COCA-COLA bottle's function is to hold COCA-COLA beverage and permit it to be poured out of the bottle, a job it certainly performs. But that does not make the bottle's shape or ribbing "functional" for trade dress purposes because those features are not necessary for the bottle to do its job. That is called as **"de facto functionality".** While another types of functionality is **"de jure functionality"** which states the feature of the product which the competitors must use to make the competition of the product. So the distinction between de jure functionality and de facto functionality is able to see from ***Inwood Laboratories, Inc. v. Ives Laboratories, Inc.***[89] which said that the distinction between de jure functionality and de facto functionality

[89] Inwood Laboratories, Inc. v. Ives Laboratories, Inc., 456 U.S. 844, 850-51 (1982)

determining the eligibility for the trademark protection or not have to look into that the design's effect on competition or not[90].

Another case which can give the clearer picture of de jure and de facto functionality is in ***Brunswick Corp. v. British Seagull Ltd***[91] which stated that "Competitiveness" included visual desirability in addition to the use, quality and cost of the product in Brunswick. There the trade dress sought to be registered was the color black for outboard motors. The color had no effect on either the cost of making the motors, on their quality or ability to function. But black was held to be de jure functional and unprotectable because black outboard motors are compatible with many boats' color schemes, and black makes the motors look smaller. Competitors' inability to use black would therefore decrease their ability to effectively compete, and trademark protection was held to be unavailable. Brunswick was decided on its facts. The Federal Circuit did not hold that color is always functional, and the Supreme Court has now expressly held that "the doctrine of `functionality' does not create an absolute bar to the use of color alone as a mark[92]."

[90] Cynthia Clarke Weber , article on *"Trade Dress Basics"*.
See, http://www.sughrue.com/files/Publication/a5e682a6-09e8-4fb4-8d52-f3ba796ee215/Presentation/PublicationAttachment/28d42aa1-f2c4-4516-9a6c-f84323a0b1a7/tradedress.htm., retrieved on 12/03/2010.

[91] Brunswick Corp. v. British Seagull Ltd., 35 F.3d 1527, 1531 (Fed. Cir. 1994), cert pending, No. 94-1075.

[92] Cynthia Clarke Weber , article on *"Trade Dress Basics"*.

Protection of Color under Trade Dress

The protection of colors in the business world having the high competition has been interested more and more. Colors can be used as trademarks in two forms—as a single color, or as a combination of colors. In the case of the combination of colors has been expressly included as a form of mark that can be used as a trademark, in much national legislation. In 1946 the Trademark Act, which is commonly called the Lanham Act, was passed by the US Congress.

Section 45 of the Lanham Act states:

The term "trademark" includes any word, name, symbol, or device, or any combination thereof

(1) used by a person, or

(2) which a person has a bona fide intention to use in commerce and applies to register on the principal register established by this Act, to identify and distinguish his or her goods,

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See, http://www.sughrue.com/files/Publication/a5e682a6-09e8-4fb4-8d52 f3ba796ee215/Presentation/PublicationAttachment/28d42aa1-f2c4-4516-9a6c-f84323a0b1a7/tradedress.htm., retrieved on 12/03/2010.

including a unique product, from those manufactured or sold by others and to indicate the source of the goods, even if that source is unknown.[93]

Color can communicate information, such as yellow of a taxicab or red of traffic signs. It should be no wonder, then, that color is often used to communicate the origin of goods and services—that is, used in trademarks and service marks. Not only is color often an important element of a trademark, color itself can be accorded full trademark protection provided certain requirements are met as set forth in the Supreme Court's 1995 Qualitex decision. Particularly, the color mark must have acquired distinctiveness and cannot be a functional element of the goods or services.

There is nowhere which has mentioned that color cannot be protected so the statutes do not exclude trademark protection of color. Obviously this is consistent with Section 2 of the Lanham Act which states that no trademark shall be refused registration on the principal register on account of its nature unless one of the stated exceptions listed in the statute applies.[94] Number of cases show that trademark protection has been granted in

[93] Lanham Act § 45, 15 USC § 1127, as amended in the Trademark Law Revision Act of 1988 ("TLRA"), Public Law 100-667.

[94] Lanham Act § 2, 15 USC § 1052: Exceptions which cannot be trademarked include:
(a) marks which are immoral, deceptive, or scandalous matter; or marks which are disparaging to "persons, living or dead, institutions, beliefs, or national symbols;
(b) marks consisting of a flag or coat of armor;

unconventional areas, for example: for the triangular shape of a chemical[95] and for the ring of the liberty bell'. Therefore color as part of a product's trade dress and as a feature of a mark has always been capable of protection. In March 1995, the United States Supreme Court clarified this in its decision ***Qualitex Co. v. Jacobsen Products Co.***[96] stating that a color, by itself, is able to be registered.

1. Statutory Interpretation prior to 1995

Although under Section 45 of the Lanham Act the word "color" has not been stated, it does not preclude trademark protection of a color. Nevertheless, prior to the *Qualitex* decision in

(c) marks consisting of the name, portrait, or signature identifying a particular living individual of a deceased President (during the life of his widow);

(d) marks similar to a registered mark which are likely to cause confusion;

(e) marks which are: (1) descriptive or deceptively mis-descriptive; (2) geographically descriptive; (3) geographically deceptively mis-descriptive; or (4) a surname;

(f) except as expressly excluded in paragraphs (a), (b), (c) and (d) of this section, nothing herein shall prevent the registration of a mark used by the applicant which has become distinctive of the applicant's goods in commerce. The Commissioner may accept a prima facie evidence that the mark has become distinctive, as used on or in connection with the applicant's goods in commerce, proof of substantially exclusive and continuous use thereof as a mark by the applicant in commerce for the five years before the date on which the claim of distinctiveness is made

[95] Minnesota Mining & Mfg. Co., 335 F. 2d 836, 142 U.S.P.Q 366 (CCPA 1982).

[96] Qualitex Co. v. Jacobsen Products Co., 115 S. Ct. 1300, 34 U.S.P.Q. 2d (BNA) 1161 (1995).

1995, US courts denied the protection of color. And such denial was based on two core policy grounds: "color depletion and shade confusion".[97]

The color depletion theory is based on the principle that there are only a limited number of available colors. The Courts have examined that if the color can get the protection then the available of the color will soon be depleted because companies were allowed to monopolize a color and all of its shades. If color protection were permitted, courts would have to compare two similar color shades to determine whether there is a likelihood of confusion between the two shades and cause shade confusion or not. And that to make the test in order to find out whether the two shades are similar or not will be so difficult. So we can see that the color depletion theory appears to be an absolute bar to the protection of color per se as a trademark. There was no need to have the color remain available for use by other competitors was of any moment. In effect, the color depletion theory acted as a harsh irrebuttable presumption that color was needed in the particular market.[98]

[97] Campbell Soup Co. v. Armour & Co., 175 F. 2d 795, 81 U.S.P.Q. 430 (3d Cir. 19949), cert. denied, 338 U.S. 847, 94 L.Ed. 518, 70 S.Ct. 88, 83 U.S.P.Q. 543 (1949).

[98] Anthony v. Lupo, *"The Pink Panther Sings The Blues: Is Color Capable Of Trademark Protection"*, 1 FED. CIRCUIT B.J. 47, 49 (1991).

2. The rejection of the traditional view in the1995 Qualitex decision

In 1985, the US Court of Appeals for the Federal Circuit rejected the traditional view on color depletion and shade confusion and held in ***Owens Corning***[99] that the single color of a product is capable of being registered as a trademark. However, the subsequent cases ***NutraSweet Company v. Stadt Corp. and Cumberland Packaging Corp.***[100] also ***Master Distributors Inc. v. Pako Corp.***[101] were two decisions where the court rejected the new precedent of *In Re Owens Corning Fiberglas Corporation.* The Supreme Court finally resolved the split of opinion in its decision *Qualitex Co. v. Jacobsen Products Co.* this decision favored the Federal Circuits' interpretation in *In Re Owens Corning Fiberglas Corporation.*

Petitioner, Qualitex, manufactured dry cleaning press pads called "Sun Glow." The pads were sold in a special shade of green-gold for more than thirty years. The product consisted of rubber, fiberglass, and insulated materials covered with a specially treated fabric to resist heat and reduce wear. In 1957 Qualitex registered its trademark "Sun Glow" at the USPTO. Until 1989 Qualitex was the only press pad manufacturer who used a green-gold color for press pads in the dry cleaning and garment industry. In 1991 Qualitex registered the green-gold color on its press pads as a trademark. Qualitex advertised its product in the "American Dry-Cleaner Magazine" since 1960 and the green- gold color had been a feature since 1970 as a

[99] Owens-Corning Fiberglas Corp., 774 F. 2d 1116, 227 U.S.P.Q. 417 (Fed. Cir. 1985).

[100] The Nutrasweet Company v. The Stadt Corp. and Cumberland Packing Corp., 917 F. 2d 1024 (7th Cir. 1990).

[101] Master Distributors Inc. v. Pako Corporation, 777 F. Supp. 744 (U.S. Dist. MN, 4th Div. 1991).

color advertisement. More than 1.5 million Dollars were spent by Qualitex to promote the green-gold color in the years between 1960 and 1990. More than one million green-gold Sun Glow press pads had been sold in this period.

The defendant, Jacobsen, started manufacturing a similar dry cleaning product in 1989. He used the same green-gold color by using the green-gold material that Qualitex rejected as seconds. When this source was exhausted, he contracted with United Textile & Supply Company and intentionally copied the green-gold color used by Qualitex. Qualitex won in the District Court,[102] but the Ninth Circuit[103] set aside the judgment on the infringement claim. The Supreme Court of the United States reversed the judgment.[104]

The Supreme Court concluded that if the color has met the basis requirement under the trademark law then there is no barrier as such to preclude such color mark to get the protection as trademark.[105] Since the source distinguishing capability of a mark not its ontological status as color, shape, fragrance, word, or sign, no basic policy objective is served

[102] *Qualitex Co. v. Jacobsen Products Co.*, 21 U.S.P.Q. 2d 1 at 457.

[103] *Qualitex Co. v. Jacobsen Products Co.*, 62 USLW 2434, 29 U.S.P.Q. 2d 1277.

[104] *Qualitex Co.*, 115 S. Ct. 1300.

[105] *Qualitex Co. v. Jacobsen Products Co.*, 514 U.S. 159, 161; 115 S.Ct. 1300, 34 U.S.P.Q. 2d (BNA) 1161 (1995).

by an absolute rejection of the use of a color as a mark. Sometimes color could play an important role in making a product more desirable, but sometimes it would not. And if the color does not play an important role to increase the essential to a product use or product feature and also does not affect cost or quality which can be called as doctrine of functionality then it does not create an absolute bar for the use of color alone as trademark.

The Supreme Court rejected the argument of shade confusion, stating that courts traditionally decide quite difficult questions about whether two words or phrases or symbols are sufficiently similar to confuse buyers. The Supreme Court also rejected Jacobsen's argument of the color depletion doctrine, because it relies on an occasional problem to justify a blanket prohibition. When a color serves as a mark, normally alternative colors would likely be available for similar use by others. Moreover if a color depletion or color scarcity problem does arise, the trademark doctrine of functionality would seem to prevent the anti-competitive consequences.

The court also rejected the argument that there was no need to permit a color by itself to function as a trademark. The court argued that a firm might want to use color, pure or simple, instead of color as part of a design, because consumers can see it from a distance. Further, trademark law would give protection that trade dress protection would not. As examples of instances where the trademark law would provide such protection the court listed the prevention of importation of confusingly similar goods, the provision regarding constructive notice of ownership, and the prima facie evidence requirement of validity and ownership.

The last argument of the defendant was also rejected. Jacobsen reasoned the prior Supreme Court case law supported its position. The Supreme Court in *Qualitex* stated the 1946 Lanham Act embodied crucial legal changes liberalizing the law to permit the use of color alone as a trademark. At a minimum, the Lanham Act's changes left the courts free to reevaluate the preexisting legal precedents which had absolutely forbidden the use of color alone as a trademark.

Hence from the decision of the court in Qualitex, we can see that there is no absolute bar as such for the prevention of the use of color as trademark, therefore, there is permission for the registration of color per se as a trademark. However it can be registered as trademark if it meets the basic requirements under the trademark law. Although the position of the registration of color mark has been clarify, the requirement of the secondary meaning is still unclear according to U.S. law. The court stated:

"We cannot find in the basic objectives of trademark law any obvious theoretical objection to the use of color alone as a trademark, where that color has attained "secondary meaning" and therefore identifies and distinguishes a particular brand".[106]

[106] Qualitex Co. v. Jacobsen Products Co., 514 U.S. 159, 115 S.Ct. 1300, 130, 334 U.S.P.Q. 2d (BNA) 1161 (1995).

This provision may be interpreted in several different ways. It could mean that color per se can be registered as a trademark only when it has acquired secondary meaning. As a consequence a color, which is inherently distinctive, but which has not acquired secondary meaning, would not be able to be registered as a trademark. The Supreme Court further stated in the *Qualitex* decision that "a product's color is unlike fanciful, arbitrary, or suggestive words[107] or designs which almost automatically tell a customer that they refer to a brand." This statement implies that a color will always be descriptive and that the showing of secondary meaning is always necessary in order to ensure that the color gets trademark protection. However, the court gave no reason why a color will always be descriptive. Considering the fact the green-gold color of the Qualitex press pads does not convey an immediate idea of the ingredients, qualities or characteristics, and considering the fact that Qualitex had developed that color specifically for the use as a trademark, the reasoning of the court seems irreconcilable. These facts indicate that a color can also be suggestive, arbitrary,

[107] There are four different types of classifications in US trademark law: A mark can either be (1) generic, (2) descriptive, (3) suggestive, or (4) arbitrary or fanciful.

Generic marks are those marks that denote the product itself, rather than the source of the mark. They are never entitled to trademark protection. Free competition is the policy basis for the denial.

Descriptive marks are those marks that describe a significant characteristic of the article. They normally convey an immediate idea of the ingredients, qualities, or characteristic of the goods.[107]They are only entitled to trademark protection if a secondary meaning is shown. In order to determine if a secondary meaning exists, courts look to consumer studies establishing consumer recognition, length, and exclusivity of use by examining sales success, advertising expenditures, and unsolicited media coverage.

Suggestive marks are those marks that require the imagination, thought and perception of a consumer in order to determine the nature of the goods.[107]In this category a mark is considered as inherently distinctive and worthy of protection immediately. Such marks do not need the requirement of secondary meaning. Arbitrary or fanciful marks are treated like the suggestive marks. They are inherently distinctive.

Arbitrary marks are those marks that use a familiar word in an unfamiliar way, while fanciful marks[107] are those marks which are invented solely for its use as a trademark.

or fanciful. The assumption that a color can also be suggestive, arbitrary, or fanciful would also be compatible with the statement of the court that a color per se can be registered as a trademark if it meets the basic legal requirements for use as a trademark.

Trade Dress Protection under Indian Trademark Law

The Indian gospel on trade dress had for a while been the decision in ***Kellog co. Vs. Pravin Kumar Badabhai***[108] where the Delhi High Court, despite enumerating the similarities in the trade dress of the plaintiff's and defendant's products, denied an injunction to the former while observing that the test was to see the products as a whole and in doing so the similarity in certain color combinations was outweighed by the differences in the word marks of the plaintiff and the defendants.[109] In ***Cadila HealthCare vs. Cadila Pharmaceuticals***[110] the Supreme Court of India has held that: "Pharmaceutical products will be purchased by both villagers and townsfolk, literate as well as illiterate and the question has to be approached from the point of view of a man of average intelligence and imperfect recollection. A trade may relate to goods largely sold to illiterate or badly educated persons. The purchaser in India

[108] Kellog co. v. Pravin Kumar Badabhai (1996) 1 Arb. L.R.430 Delhi.

[109] Majumder SwetaSree, *"Painting The Town Red (And White): Indian Law Recognizes Trade Marks Rights in a Colour Combination"*, E.I.P.R. 2004, 26(8), 365-368.

[110] Cadila HealthCare v. Cadila Pharmaceuticals, AIR 2001 SC 1952.

cannot be equated with a purchase of goods in England. While we agree that in trademark matters, it is necessary to go into the question of comparable strength. In a country like India where there is no single common language, a large percentage of population is illiterate and a small fraction of people know English, then to apply the principles of English Law regarding dissimilarity of the marks or the customer knowing about the distinguishing characteristics of the plaintiff's goods seems to over look the ground realities in India."

At the same time, the Delhi High Court in ***Untied Distillers Plc. v. Jagdish Joshi,***[111] a suit for passing off, evaluated the relative similarities in the trade dress of the defendant and the plaintiff and held that a bare perusal of the trade dress of the defendant denoted a striking similarity between the defendant's and the plaintiff's products and the defendant's had not given any satisfactory explanation as to why there were such similarities with the plaintiff's trade dress in their product's trade dress.

In this backdrop, the decision of the Delhi High Court in ***Colgate Palmolive Co. v. Anchor Health and Beauty Care Pvt. Ltd*** [112] comes like a breath of fresh air, clearly charting new territory for Indian trademark law. In this suit for passing off, the plaintiff sought an interim injunction against the defendant's use of the trade dress and color combination of red and

[111]Untied Distillers Plc. v. Jagdish Joshi (2000) P.T.C.502.

[112] Colgate Palmolive Co. v. Anchor Health and Beauty Care Pvt. Ltd 2003 VIIIAD Delhi 228, 108 (2003) DLT 51.

white in relation to identical products i.e. tooth powder, when the marks being used by the two parties were completely distinct, being 'Colgate' and 'Anchor'. In the judgment the court held: "It is the overall impression that a consumer gets as to the source and origin of the goods from visual impression of color combination, shape of the container, packaging etc. if an illiterate, unwary and gullible customer gets confused as to the source and origin of the goods which he has been using for longer period by way of getting the goods in a container having particular shape, color combination and getup, it amounts to passing off.

In other words at the first glance of the product if the overall feature of the product which is the combination of get up or lay out appearing on the container and packaging gives the impression as to deceptive or near similarities in respect of these ingredients, it is a cause of confusion and amounts to passing off one's own goods as those of the other with a view to encash upon the goodwill and reputation of the owner. Color combination, get-up, layout and size of container are sort of trade dress, which involves overall image of the product's features. There is a wide protection against imitation or deceptive similarities of trade dress as trade dress is the soul for identification of the goods as to its source and origin and as such is liable to cause confusion in the minds of unwary customers particularly those who have been using the product over a long period of time.

In the acquired reputation of Colgate's red and white color combination in its trade dress, the court held that as the trademarks of both 'Colgate' and 'Anchor' had been written in English language so they could not be distinguished or differentiated by ordinary customers easily who bare literacy level is low. Also if a product having distinctive color combination, style, shape and texture had been in the market for a long time in this case it was in the market since 1951, it could have acquired secondary meaning on account of its reputation and goodwill earned at huge cost. It said that the criteria was the overall impression from the look of packaging or container containing the goods and articles that could legitimately injunct its rival which was an element of unfair competition on part of the infringing party.

The proof of acquired distinctiveness through secondary meaning as required in the product design configuration trade dress cases in US is necessary to prove good will and reputation through long use and existence in the market by the plaintiff. The law relating to the trade dress in India is still ambiguous and there is no final conclusion as such there is only in case of Colgate vs. Anchor which has been decided by Indian Court. So the new features of the Indian Trademark Law 1999 includes shape marks and color combinations as marks. Under this, a product package including its color combination, size, shape etc. or a product design or configuration as shape mark may be registrable as a mark. However there is the passing off rule which can be applied in the case of the unregistered trade dress as we can see in the case of Colgate Palmolive case.

Another unconventional mark which has been protected under Indian Trademark Act is shape mark.

Under Section 9 of the Indian Trademark Act, 1999, "Absolute grounds for refusal of registration; 3) A mark shall not be registered as a trade mark if it consists exclusively of- (a) the shape of goods which results from the nature of the goods themselves; or (b) the shape of goods which is necessary to obtain a technical result; or (c) the shape which gives substantial value to the goods. Explanation.-For the purposes of this section, the nature of goods or services in relation to which the trademark is used or proposed to be used shall not be a ground for refusal of registration".

From Section 9 (3) of the Indian Trademark Act, 1999 we can see that the protection of the shape of goods as trademark does not preclude from the registration of the mark. However there are some certain to get the protection on the shape of goods;

a.) it results from the nature of goods

b.) it is necessary to obtain technical result

c.) c.) there is the substantial value to the goods in the trademark. However even though Indian Trade Marks Act includes the shape of goods in the definition of trademarks, but the scope of protection is still unclear.

Trade Dress Infringement

If a trade dress is a registered trademark, a claim for trade dress infringement may be asserted under Section 32(1) of The Lanham Act (15 U.S.C. Section 1114(1)). When the trade dress is not registered, a trade dress infringement claim may be asserted under Section 43(a) of The Lanham Act.

"Any person who, on or in connection with any goods...or any container for goods, uses in commerce any word, term, name symbol, or device, or any combination thereof, of any false designation of origin, false or misleading description of fact, or false or misleading representation of fact, which...is likely to cause confusion...as to the origin, sponsorship, or approval of his or her goods...by another person...shall be liable in a civil action by any person who believes that he or she is likely to be damaged by such act."[113]

[113] 15 U.S.C. Section 1125(a).

There is one interesting case which has talked about the trade dress infringement, ***Gibson Guitar Corp. v. Paul Reed Smith Guitars***[114]. Gibson Guitar Corporation has manufactured the Les Paul solid body guitar since 1952. Gibson registered the shape of the Les Paul guitar on the principal register in 1987. The mark is incontestable. Paul Reed Smith Guitars (PRS) introduced the Singlecut, a similarly shaped solid body guitar in 2000. Gibson sued PRS for trademark infringement. The District Court granted Gibson's summary judgment motion on its trademark claim, and PRS appealed. Gibson conceded before the District Court and on appeal that there was no point-of-sale confusion between its Les Paul guitars and PRS's Singlecut guitars. It nonetheless argued that the similarity in guitar shapes was likely to cause actionable confusion before and after the point of sale[115].

Trade dress can be protected as getup under the law of passing off in UK and in India. Passing off is a common law remedy for protecting unregistered Trade Marks. Effectively it seeks to protect the rights of an individual or business, by protecting the goodwill of that business from unfair trading by other parties. It prevents other parties from carrying on business or selling their products under a name, mark or description, which could mislead the public by confusing them to believe that the business or goods in question are those of plaintiff. Basically, passing off is connected with protecting unregistered Trademarks. Getup,

[114] Gibson Guitar Corp. v. Paul Reed Smith Guitars 423 F.3d 539 (6th Cir. 2005).

[115] Ginsburg Jane C., Litman Jessica , Kevlin L. Mary, "*Trademark and Unfair Competition Law*", published by Foundation Press, New York, Fourth Edition, 2007, P.p.515-518.

packaging, business strategy, marketing techniques, advertisement themes etc. can also be protected under passing off[116].

Lord Oliver developed a list of three elements for determining passing off in ***Reckitt & Colman Products Ltd v. Borden Inc., Case***[117] namely:

1. the existence of the claimant's goodwill.

2. a misrepresentation as to the goods or services offered by the defendant.

3. damage or likely damage to the claimant's goodwill as a result of the defendant's misrepresentation.

So, passing off essentially protects the goodwill of an individual or his business. Past case laws have established that goodwill can exist in anything like mark, symbol, device, shape, package, get-up, color or color combination of the goods or any combination thereof. Therefore, Trade Dress can be effectively protected as get-up under the law of passing off.

[116]Ranjit Kumar Gulla, article on *"The Concept of Trade Dress Protection—Its Scope and Development*".

[117] Reckitt & Colman Products Ltd v. Borden Inc., (1990) 1 All ER 873.

CHAPTER 6

CONCLUSION AND SUGGESTION

Doctrine of Functionality has played very crucial role in Intellectual Property Rights to determine whether such subject matter can be protected or not. Such doctrine has role differently in each aspects; patent, trademark, copyright. Even though there is no certain standard as such to weigh the protectable subject matter, the Courts in many countries have tried to make the clear point on what is doctrine of functionality and when the doctrine of functionality will play the role to exclude the subject matter from protection.

The Court has tried to define the definition of doctrine of functionality like in the case of *Inwood Laboratories, Inc. v. Ives Laboratories, Inc.*, 456 U.S. 844, 102 S.Ct. 2182, 72 L.Ed.2d 606 (1982). Although in this case the main was not dealing with the functionality doctrine, the Court had defined the functionality doctrine that ***"'"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."*** Also Inwood case had mentioned the two types of functionality doctrine, de jure and de facto and distinction between them. And to determine whether such particular product design is *de jure* functional, we have applied the "Morton-Norwich factors": (1) the existence of a utility patent disclosing the utilitarian advantages of the design; (2) advertising materials in which the originator of the design touts the design's utilitarian advantages; (3) the availability to competitors of functionally equivalent designs; and (4) facts

indicating that the design results in a comparatively simple or cheap method of manufacturing the product. Congress explicitly recognized the functionality doctrine in a 1998 amendment to the Lanham Act by making "functionality" a ground for *ex parte* rejection of a mark, 15 U.S.C. § 1052(e)(5) (2000). Thus under this provision, a mark that comprises "any matter that, as a whole, is functional" is not entitled to trademark protection.

There are many cases which have shown that the doctrine of functionality can bar the subject matter from getting the protection under trademark law if such product elements such as shape, color or design are functional. Therefore, the first criterion in selecting a product configuration is to select a configuration which is not functional. Is the configuration essential to the use or purpose of the product? Does the configuration affect the cost or quality of the product? If so, the configuration would generally be construed as functional. While the Coke bottle shape does have a function, i.e., as a container for the product, it is not essential to the use or purpose of the product and does not affect its cost or quality. If the configuration does not result in a comparatively simple or inexpensive method of manufacture; has no utilitarian advantage over competitor's configurations; and alternative product configurations are available to competitors, the configuration would appear to be non-functional. Prior to finalizing the selection of the configuration as nonfunctional, confirm with the relevant in-house personnel that the configuration is not the subject of a current or expired utility patent and that marketing is not planning to tout any utilitarian advantages of the proposed configuration. Having made these primary "nonfunctional" inquiries, the second criterion is the distinctiveness of the proposed configuration.

In Patent the claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research. Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.

Also in Copyright law, Similar to the type of protection provided by design patents, copyrights can expressly protect "works of artistic craftsmanship, insofar as their form but not their mechanical or utilitarian aspects are concerned; the design of a useful article shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article." So the understanding of the doctrine of functionality will help clarify the subject matter which can be protected. The idea expression dichotomy and the separability will help distinguish between the statutory and non statutory subject matter. The idea-expression dichotomy is at the core of the copyright law and it developed as a means for putting limitations over

functional claim of copyrighted works. Also a determination of separability, either physical or conceptual, is a prerequisite or precondition to get the copyright protection for the design of a useful article. In the legislation scenario, the separability inquiry asks whether the aesthetic features of a useful article can be identified separately from, and can exist independently of, the work's utilitarian functions.

When we look into the India law scenario, Intellectual Property Rights Act, there is no provision which has mentioned or stated clearly or directly on the doctrine of functionality. Also the application of such doctrine rarely occurs under the Indian Court. There is no case as such which has talked about the doctrine of functionality. So the understanding of the doctrine can be made by learning from the judgments of the Courts in various law systems like US and EU. Nevertheless there is no provision in US or EU laws also which has stated clearly about the concept of such doctrine. Thus the more understanding on the functionality doctrine can be perceived from the decisions of the Courts of those countries. Consequently the amendment of the Indian Intellectual Property Rights is important in order to come up with the provisions which will mention about the definition and the application of the doctrine.

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