Nagasima Electronic Engineering Pte Ltd v APH Trading Pte Ltd
[2005] SGHC 59

Case Number : Suit 158/2004

Decision Date : 29 March 2005

Tribunal/Court : High Court

Coram : Lai Kew Chai J

Counsel Name(s) : Sarbjit Singh Chopra and Muna Mohamad Talib (Lim and Lim) for the plaintiff; Toh Kok Seng and Tung Yang Thong (Lee and Lee) for the defendant

Parties : Nagasima Electronic Engineering Pte Ltd — APH Trading Pte Ltd

Designs – Infringement – Plaintiff alleging defendant's electrical isolator infringing its registered design – Defendant asserting no such infringement because defendant's product substantially different from plaintiff's registered design – Whether defendant's electrical isolator infringing plaintiff's registered design

Designs – Registrable designs – Defendant claiming plaintiff's registration of design invalid – Whether plaintiff's design registrable under s 5(2) Registered Designs Act – Whether definition of "design" under s 2(1) of Act excluding plaintiff's design from application of Act – Sections 2(1)(b)(i), 2(1)(b)(iii), 5(2) Registered Designs Act (Cap 266, 2001 Rev Ed)

29 March 2005 *Judgment reserved.*

Lai Kew Chai J:

1 The plaintiff's claim against the defendant is for alleged infringement of the registered design of an electrical isolator. It seeks an injunction, delivery up, accounts and damages. The defendant denies any infringement and further alleges that the registration was, in any event, invalid. It counterclaims for an order that the registration be declared invalid.

2 The electrical isolator split the TV and FM input into TV/FM ports. An electrical isolator is embedded in the wall within a casing. It is always hidden behind a CATV Outlet Plate ("the face plate"). The face place has two outputs, one for the TV and the other for the FM. It is mostly installed in Housing and Development Board ("HDB") flats. In contrast to the electrical isolator, which is hidden, the face plate, being visible, has to blend with other switches and look attractive.

3 The design was registered in the UK on 11 August 2000 but was given a registration date of 2 August 2000. Pursuant to para 2 of the Schedule to the Registered Designs Act (Cap 266, 2001 Rev Ed) ("RDA"), the design is deemed a registered design in Singapore and accorded protection by the RDA. The statement of novelty stated in the Certificate of Registration of Design reads as follows:

> The features of the design for which novelty is claimed reside in the shape and configuration of the article, excluding the parts shaded blue as shown in the representations.

4 The parts which were shaded blue in the representations refer to the L-shaped jack plug. The jack plug is orientated in a position parallel to the length of the electrical isolator.

The facts

5 Based on the evidence led before me, the facts are as follows. The plaintiff and the

defendant are the two leading manufacturers of electrical isolators in Singapore. They supply them mainly for installation in HDB flats. Apart from the parties, a company known as Nera (SEA) Pte Ltd ("Nera") also supplies electrical isolators. The defendant is the original equipment manufacturer for Nera.

6 Previous designs of electrical isolators had to be re-designed because HDB decided in 2000 to embed electrical isolators in the walls of flats, just as electrical trunking became hidden in walls. The TV and FM ports used to face downwards after installation, as the box containing the electrical isolator was installed on and jutting out of the wall. New-generation electrical isolators, like model 1000L,[1] have their TV and FM ports face sideways so that those ports appear as two openings on the surface plate.

7 The main witnesses of both parties gave evidence on the drawings and prototypes of the design, which they had allegedly furnished to HDB. Mr Ngo Lai Huat ("Mr Ngo"), a director of the plaintiff, stated in para 9 of his affidavit of evidence-in-chief that at the conclusion of the plaintiff's second meeting with the HDB officer, the plaintiff had handed in its prototype of the new design. He further stated in the following paragraph of his affidavit of evidence-in-chief that at the third meeting, the HDB officer had shown the plaintiff's prototype, with slight amendments, to those present at the meeting.

8 In contrast, the defendant led cogent evidence that its design of the electrical isolator was accepted by HDB. According to Mr Moo Che Yong ("Mr Moo"), a director of the first defendant, Mr Ngo's evidence was "completely untrue". Mr Moo stated that, in truth and in fact, he was the one who supplied HDB with drawings of new electrical isolator designs. HDB, he said, subsequently used his drawings with modifications. He produced in court copies of e-mails and faxes exchanged in August and October 2000 with the HDB officer regarding the design of the electrical isolator, as well as the box covering for the face plate. This documentary evidence proved that the first defendant, through Mr Moo, had many discussions with the HDB officer and that HDB had adopted the defendant's design of the electrical isolator and the drawings.

9 I turn to the history of dealings in electrical isolators. The first defendant started dealing in electrical isolators as early as 1996. The electrical isolators sold at that time were the models labelled "1000A", "1000B" and "1000E". They were very similar to the first defendant's latest electrical isolator model labelled "1000L". The design of this latest electrical isolator is the alleged infringing electrical isolator.[2]

10 Mr Moo made a comparison of the electrical isolators, model 1001B[3] and model 1000L.[4] Model 1001B was manufactured by the first defendant, and the design of these electrical isolators was claimed by the first defendant to be part of the prior art, having been sold much earlier in the market. Mr Moo said in evidence that there are only two visual differences between the two models, model 1001B and model 1000L. First, the TV and FM ports in model 1001B are placed on the lower half of the face plate. In the case of model 1000L, the two ports are placed near the centre of the face plate. Second, the jack plug in model 1001B is straight, whereas the jack plug in model 1000L is L-shaped.

11 In my view, the differences are immaterial and are dictated solely by the lack of space in the new designs of outlet socket covers, which are usually embedded in walls. HDB had required new designs of such outlet socket covers to be of the same size as electrical switch socket covers. As a result, the jack plug has to be L-shaped in order that the electrical isolator can fit into the smaller covers.

12 I also accept the evidence of Mr Moo, supported by sales invoices evidencing sales in 2001, that model 1000L,[5] alleged by the plaintiff to be the infringing design, was first sold in Singapore around 2001. Mr Ngo in cross-examination admitted that in 1995, the plaintiff started to sell its own electrical isolators called "CS2002".[6] Those electrical isolators were almost 100% similar to the design of Nera's electrical isolator model 1000A,[7] which was claimed by the first defendant as part of the prior art. From what he could remember, Mr Ngo himself thought that the electrical isolator, model 1000A,[8] was in the market in 1996, although he was not sure.

13 The registered design, in my view, is identical to the shape and configuration of model NERA 1000B,[9] model APH1001B[10] and model NEE CS-2003.[11] All of them pre-date the registration date of 2 August 2000. Mr Moo said in evidence that model NERA 1000B was sold in 1996 and model APH1001B was sold in 1997. Mr Ngo himself said that he had already manufactured and sold electrical isolators exactly the same as model
NEE CS-2003 in 1995.

14 Mr Ngo further admitted that if the jack plug was excluded, the registered design would be identical to the prior art. The admission of Mr Ngo was recorded in the following cross-examination:

> Q: Do you agree that the design of the electrical isolator casing and the two ports are identical to those in the NERA 1000B (exhibit D2) or even the first defendant's APH1001B(D4) and even your CSI2003 (exhibit P5)?
>
> A: Yes, I agree.

The applicable law

15 This case is governed by the provisions of the new RDA, which replaced the former United Kingdom Designs (Protection) Act (Cap 339, 1985 Rev Ed). Under para 2 of the Schedule to the RDA, the plaintiff's registered design in the UK is deemed to be a registered design for the purposes of the RDA.

16 The provisions of the RDA are almost identical to the provisions of the UK Registered Designs Act 1949 (c 88) (as amended by the UK Copyright, Designs and Patents Act 1988 (c 48) and set out in Schedule 4 thereof) ("the UK Act"). Section 1(1) of the UK Act reads as follows:

> In this Act "design" means features of shape, configuration, pattern or ornament applied to an article by any industrial process, being features which in the finished article appeal to and are judged by the eye, but does not include —
>
> (a) a method or principle of construction, or
>
> (b) features of shape or configuration of an article which —
>
> (i) are dictated solely by the function which the article has to perform, or
>
> (ii) are dependent upon the appearance of another article of which the article is intended by the author of the design to form an integral part.

17 It is now convenient to set out ss 2(1) and 5(2) of the RDA which read as follows:

(a) Section 2(1):

"design" means features of shape, configuration, pattern or ornament applied to an article by any industrial process, but does not include —

(*a*) a method or principle of construction; or

(*b*) features of shape or configuration of an article which —

(i) are dictated solely by the function which the article has to perform;

(ii) are dependent upon the appearance of another article of which the article is intended by the designer to form an integral part; or

(iii) enable the article to be connected to, or placed in, around or against, another article so that either article may perform its function;

(b) Section 5(2):

A design for which an application for registration is made shall not be regarded as new if it is the same as a design —

(*a*) registered in respect of the same or any other article in pursuance of a prior application; or

(*b*) published in Singapore or elsewhere in respect of the same or any other article before the date of the first-mentioned application,

or if it differs from such a design only in immaterial details or in features which are variants commonly used in the trade.

18 It is immediately apparent that the definition of "design" in the RDA is similar to its equivalent in the UK Act save in two respects. First, the requirement of "eye-appeal" has been removed. Second, there is an additional exclusion of "must fit" features in s 2(1)(b)(iii) of the RDA, absent in the definition in the UK Act.

The issues

Lack of novelty

19 The first issue is whether the design was not registrable as it was not new, or it differed from existing designs only in immaterial details or features which are variants commonly used in the trade. The resolution of this issue depends on the application of the facts of this case to s 5(2) of the RDA.

20 On the evidence, I find that the registered design is not novel over the prior art. The prior art has been described earlier in this judgment. Further, there is ample evidence to show that the design of the right-angled jack plug is not novel. Such right-angled connectors were on sale in 1986. They were used in two housing estates in 1995 and 1998. Mr Ngo admitted as much. I also take judicial notice of the fact that connectors of all shapes, including right-angled shapes, have been in existence for a very long time, not just in the electrical field but in other fields such as plumbing. The connectors are right-angled to connect two items where a direct or straight connection is not possible.

21 Counsel for the plaintiff submitted that the registered design is to be viewed as a whole together with the jack plug. He relies on [70] of the judgment of the Court of Appeal in *Hunter Manufacturing Pte Ltd v Soundtex Switchgear & Engineering Pte Ltd* [2000] 1 SLR 401 ("the *Hunter* case") which reads:

> A registered design includes all its features, those which are novel and those which are not, and must be looked at as a whole, and the comparison exercise conducted must have regard to the design as a whole.

22 In my view, the plaintiff's argument is not tenable. The passage quoted is clearer if considered in its context. Firstly, the Court of Appeal was considering the approach to take when determining the question of infringement. The Court of Appeal went on to say this at [70]: "There will be no infringement, if the alleged infringement is substantially different from the registered design looked at as a whole." One must not conflate the tests for novelty and infringement. Secondly, the statement of novelty in the *Hunter* case was directed to, and monopoly was claimed in respect of, the entire electrical box. The Court of Appeal, therefore, looked at the features of the box as a whole. Finally, at [69], the Court of Appeal said that a court should assess what the essential or significant features of the registered design were, having regard to such matters as the statement of novelty, relevant prior art and functional exclusions.

Functional exclusion

23 The next issue is whether the design was not registrable, as the features of shape or configuration of the article were dictated solely by the function which the article had to perform. If so, the exclusion is under s 2(1)(b)(i) of the RDA.

24 In considering this issue, it is relevant to note that there are certain international, industry and HDB standards to adhere to. If not adhered to, the electrical isolator will not be able to perform its function. The diameters of the TV and FM ports are fixed by industry standards. The distance between the two ports is fixed by international standards. Currently, the industry practice is to have the entire socket embedded into the wall, with the face plate flushed with the surface of the wall. Therefore, the two ports have to stick out from the front face plate, as opposed to the previous practice of having them stick out at the bottom. The exact location of the two ports (whether top half, centre or lower half of the electrical isolator casing) depends entirely on HDB's requirements and is fixed to match the openings on the face plate.

25 As for the right-angled jack plug or connector, it is evident that this is to fit into the smaller type of outlet covers, and also to allow the coiling of spare lengths of cable.

26 In response, counsel for the plaintiff submitted that functional exclusion would only apply to articles that take the sole shape possible for the intended purpose that the article has to perform. If this argument is right, the consequence is that if the plaintiff can show that there is at least another possible design (*eg*, situating the jack plug in a different location on the electrical isolator) which can perform the same function, then this functional exclusion under s 2(1)(b)(i) of the RDA is not applicable.

27 I agree with counsel for the defendant that this submission is not acceptable. The same argument was made in *Amp Incorporated v Utilux Proprietary Limited* [1971] FSR 572. The defendant in that case contended for a very narrow interpretation of the words "dictated *solely* by the function" [emphasis added]. Though accepted by the English Court of Appeal, it was finally rejected by the House of Lords. Such a narrow interpretation would have rendered the statutory exclusion virtually of

no effect.

28 Section 2(1)(b)(i) of the RDA is identical in wording to s 1(1)(b)(i) of the UK Act. Parliament could not have intended a provision which has virtually no practical effect. Further, the plaintiff's argument had been rejected by the Singapore Court of Appeal in the *Hunter* case at [36].

"Must fit" exclusion

29 The third issue is whether the design was not registrable as features of the shape or configuration of the article were such as to enable the article to be connected to, or placed in, around or against, another article so that either article may perform its function (the "must fit" exclusion in s 2(1)(b)(iii) of the RDA). In my view, the electrical isolator was shaped in a way to fit the casing box (the internal part embedded in the wall) and the face plate (the external part visible to the occupier of the flat). The electrical isolators produced in court[12] demonstrate why the jack plug or connector had to be angled. A straight plug would never be able to fit into the casing box. In relation to the TV and FM ports, their specifications are fixed by industry and international standards. Further, the distance between the two ports is fixed. The only variable is the location of the two ports. This depends entirely on the location of the corresponding openings or holes on the face plate. The electrical isolator must fit into the corresponding holes on the face plate.

No infringement

30 Finally, I turn to the last issue raised by the defendant. It asserted that there is no infringement because the defendant's product is substantially different from the plaintiff's registered design.

31 In this context, it is important to note that the comparison is to be made between the alleged infringing electrical isolator, *ie*, the defendant's 1000L,[13] and the registered design as described in the Certificate of Registration of Design. In this case, it is vital to note, as pointed out by counsel for the defendant, that the comparison is not to be made with any electrical isolator which the plaintiff claims to have manufactured in accordance with the registered design. To do so would most evidently be a mistake.

32 The plaintiff tendered model CSI2004[14] as an electrical isolator manufactured by the plaintiff for which the design was registered. An examination of model CSI2004, the prior art and the registered design will disclose that this is not correct. In model CSI2004, the TV and FM ports are in the centre of the electrical isolator casing. In the registered design and the prior art, the ports are always at the bottom half of the electrical isolator casing. The registered design was actually based on the prior art rather than on model CSI2004. I have not seen any electrical isolator made by the plaintiff in accordance with the registered design. The difference in the locations of the ports is significant. It requires corresponding changes to be made to the face plate and approval from HDB. Otherwise it will not fit into the face plate and it is not possible to use it.

33 The other significantly different feature between the alleged infringing electrical isolator and the registered design has to do with the orientation of the jack plug. In the design, the jack plug is orientated in a position parallel to the length of the electrical isolator. In the alleged infringing electrical isolator, the jack plug is angled inwards away from the TV and FM ports. It was explained in court that this would make it easier for contractors to secure the cable.

34 The differences may be minor but in relation to a common object like an electrical isolator, which is installed by contractors in almost every home, those differences are, in my view, sufficient to

render the defendant's design substantially different from the registered design.

Conclusion

35 In the circumstances, the plaintiff's action is dismissed with costs and there will be an order in terms of the counterclaim.

Claim dismissed. Counterclaim allowed.

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[1]Exhibit D9.

[2]Admitted as exhibit D9 with face plate at the trial.

[3]Exhibit D4.

[4]Exhibit D5 also referred to as exhibit D9 with face plate.

[5]Exhibit D5

[6]Exhibit P3.

[7]Exhibit D1.

[8]Admitted as exhibit D1.

[9]Exhibit D2.

[10]Exhibits D4.

[11]Exhibit D8/P5.

[12]*Eg*, exhibits D6 and D7.

[13]Exhibit P2 or exhibit D5.

[14]Exhibit P1.