

**Bean Innovations Pte Ltd and another**

v

**Flexon (Pte) Ltd**

[2001] SGCA 42

Court of Appeal — Civil Appeal No 78 of 2000  
Yong Pung How CJ, L P Thean JA and Chao Hick Tin JA  
23 April; 26 May 2001

*Patents and Inventions* — *Groundless threat* — *Whether threat of infringement proceedings groundless* — *Whether threats fall within exemption relating to certain types of infringing acts* — *Whether patent infringement established* — *Section 77(4) Patents Act (Cap 221, 1995 Rev Ed)*

*Patents and Inventions* — *Infringement* — *Proprietor and exclusive licensees of patent alleging infringement* — *Principles of construction* — *Purposive construction* — *Whether all essential integers of claim present*

*Words and Phrases* — *“Making or importing a product for disposal”* — *Section 77(4) Patents Act (Cap 221, 1995 Rev Ed)*

**Facts**

The second appellant was the proprietor of a Singapore patent for a mailbox assembly with a device of a central locking system for individual mailboxes, which served to prevent junk mail from being delivered into the mailboxes. The device operated with the use of a matrix of orthogonal bars in the interior of the mailboxes. The first appellant company, in which the second appellant was the managing director, was the exclusive licensee of the patent.

The respondent designed a mailbox assembly which also had a device of central locking system for individual mailboxes. The device also served to prevent junk mail from being delivered into the mailboxes. However, the respondent's invention used stopper screws which were screwed to a vertical side bar in the interior of the mailboxes.

The respondent supplied and installed its mailbox assemblies in certain housing estates. Subsequently, the appellants threatened the respondent with legal proceedings for patent infringement. The infringing acts alleged in the threats were: “making prototypes of, manufacturing, supplying, delivering, installing, selling and/or offering to sell” mailboxes. The respondent denied infringement and brought proceedings against the appellants under s 77 of the Patents Act (Cap 221, 1995 Rev Ed), seeking a declaration that the appellants' threats were unjustifiable, an injunction against further threats, and damages. The appellants in their defence invoked s 77(4) of the Patents Act, which prohibited proceedings for threats relating to “making or importing a product for disposal” or “using a process”. The appellants also counterclaimed against the respondent for infringement of their patent.

Rubin J held that the respondent was entitled to bring the action under s 77 for the appellants' threats. He further held that there was no infringement by the

respondent of the appellants' patent. Against his decision, the appellants appealed.

**Held, dismissing the appeal:**

(1) Section 77(4) only exempted threats relating to making or importing a product for disposal, or to using a process, but did not apply to other acts of infringement, such as "supplying, delivering, installing, selling and/or offering to sell" a product, or otherwise disposing of it. The appellants' threats were not confined only to the infringing acts described in s 77(4), they were much more extensive. The defence afforded by s 77(4) could not apply to the appellants' threats: at [11].

(2) Further, the acts of "supplying, delivering, installing, selling and/or offering to sell" could not be construed as an adjunct to or *ejusdem generis* to "making or importing" for disposal. In any case, what s 77(4) referred to was "making ... a product for disposal" and not the "making or disposal of a product". It was the act of "making" and not the act of "disposal" that was exempted by s 77(4). Threats relating to the acts of "sale and supply" were not exempted: at [14].

(3) The claims as stated in the specification of the patent were the principal determinant of the scope of the monopoly for which protection was provided. Whether the claim in issue ("the Claim") had been infringed was essentially a question of construction of the Claim, comparing the features of such Claim with those of the respondents' invention. In construing the Claim, the words and terms thereof had to be given their reasonable and sensible meaning. On the other hand, one must not adhere too strictly to the literal wordings of the claim. A purposive construction was to be adopted: at [18] and [19].

(4) On the issue of infringement, the description and other parts of the specification might assist in the construction of the claims. In this case, the most essential feature of the Claim was the presence of the matrix of orthogonal bars: at [20] and [21].

(5) There were clearly differences between the two inventions. Comparing the respective features, the respondents' mailbox assembly did not infringe the Claim of the appellants' patent: at [22].

(6) The well-known principle that patent claims were to be given a purposive construction did not mean that the court was entitled to disregard the clear and unambiguous words used to describe the essential features of a claim. Even adopting a purposive construction, one could not write words into a claim that were not there or give a meaning to a term of a claim that was contrary to its language: at [27].

(7) To succeed on the claim of infringement, the appellants had to show that all the essential integers of the Claim were present in the respondent's invention. That they failed to do. Accordingly, their claim failed: at [28].

**Case(s) referred to**

*Brain v Ingledew Brown Bennison & Garrett (No 3)* [1997] FSR 511 (fold)

*Brugger v Medic-Aid Ltd* [1996] RPC 635 (fold)

*Catnic Components Limited v Hill & Smith Ltd* [1982] RPC 183 (fold)

*Cavity Trays Limited v RMC Panel Products Limited* [1996] RPC 361 (folld)  
*Electric & Musical Industries Ltd v Lissen Ltd* [1938] 4 All ER 221; (1939) 56 RPC 23 (folld)  
*Rodi & Wienenberger AG v Henry Showell Ltd* [1969] RPC 367 (folld)  
*Rotocrop International Ltd v Genbourne Limited* [1982] FSR 241 (folld)  
*Société Technique de Pulverisation Step v Emson Europe Ltd* [1993] RPC 513 (folld)

### Legislation referred to

Patents Act (Cap 221, 1995 Rev Ed) s 77(4) (consd);  
ss 25, 69(1)  
Patents Act 1977 (c 37) (UK) s 70(4)

*Wong Siew Hong and Ivy Tan (Infinitus Law Corporation) for the appellants;*  
*Jupiter Kong and Paul Teo (Drew & Napier) for the respondent.*

[Editorial note: The decision from which this appeal arose is reported at [2000] 3 SLR(R) 492.]

26 May 2001

Judgment reserved.

### Chao Hick Tin JA (delivering the judgment of the court):

#### The facts

1 This appeal concerns a Singapore Patent No 52288 for a device described as a “mail box assembly with lockable delivery flaps”. The patent was first registered in the United Kingdom as No GB 2 289 500. It was subsequently registered in Singapore and the certificate of registration was issued on 16 November 1998. The mailbox assembly was designed by the second appellant, Tan Mui Teck (“Mr Tan”). He is therefore the proprietor of the patent, and the first appellant, Bean Innovations Pte Ltd (“Bean Innovations”), in which Mr Tan is the managing director, is the exclusive licensee of the patent in Singapore. The mailbox assembly as designed by Mr Tan has a device of central locking system for individual mailboxes, which serves to prevent junk mail from being delivered into the individual mailboxes. For convenience, we shall refer to Mr Tan’s patent as the appellants’ patent, and the device or invention designed by him as the appellants’ device or invention.

2 The appellants’ device or invention has the following main features. Each of the mailboxes in the assembly has a delivery flap, called the “postman’s trap door”, through which the mails are delivered, and a collection door for collecting the mails. The top edge of each postman’s trap door is pivotally connected to a bar and the lower outer edge abuts against a portion of a stopper, called “the trap door stopper”. This assembly of mailboxes has a device of a central locking system for individual mailboxes,

and the device operates in this way. In the interior of the mailboxes, there is a matrix of orthogonal bars comprising: (a) a universal biasing bar at the top running along the width of the assembly; (b) a pair of vertical supporting bars, one on each side, connected to both ends of the biasing bar at the top; and (c) a plurality of horizontal bars, called the “anti-junk mail bars”, which are positioned behind the postman’s trap doors extending between the two vertical support bars and connected to them. Thus, all the bars within this matrix are connected. This matrix of bars is movable vertically. When the matrix is lowered, the horizontal anti-junk mail bars block the postman’s trap doors, thus preventing them from being opened, and when the matrix is raised the anti-junk mail bars in turn are raised, thus allowing the postman’s trap doors to be opened and mails to be delivered into the mailboxes. This movement of the matrix is operated by a master lock located at the upper front panel of the mailbox assembly but just below the biasing bar so that when the lock is turned or unlocked, it raises the matrix of bars within the mailbox assembly, and when it is locked, it lowers the matrix. Such device serves to prevent junk mail from being delivered into the individual mailboxes.

3 The respondents, Flexon Pte Ltd (“Flexon”), were incorporated in 1975, and have since been involved in the manufacture of fabricated metal products. They have designed a mailbox assembly, which also has a device of central locking system for individual mailboxes, and they call it “Master Door Letter Box with Aperture Central Locking”. We shall refer to this invention of Flexon as the Flexon device or invention.

4 The Flexon invention has the following main features. It is an assembly of mailboxes and each mailbox has a delivery flap through which the mails are delivered, and a collection door immediately below the flap. The lower edge of the flap abuts against the upper edge of the collection door, which acts as a stopper for the flap. The mailbox central locking system operates in this way. In the interior of the mailboxes are the stopper screws at one side which are located immediately behind the flaps but do not extend across the flaps. They are screwed onto a vertical bar at the side. The vertical side bar is connected to a lever at the top and this lever raises and lowers the side bar vertically. When the side bar is lowered, the stopper screws are in turn lowered and block the flaps, thus preventing them from being opened. When the side bar is raised, the stopper screws in turn are raised, thus allowing the flaps to be opened. The movement of the side bar vertically is operated by a master lock located at the upper front panel but slotted into the lever inside. When the lock is in a locked position, it lowers the vertical bar which in turn lowers the stopper screws to a position just behind the flap thus preventing the flaps from being opened. When the master lock is turned and unlocked, the lever raises the side bar, which in turn raises the stopper screws, thus allowing the flaps to be opened and

mails to be delivered. This device is also designed to prevent junk mail from being delivered into the mailboxes.

5 Admittedly, there is a demand for mailbox assemblies with a central locking system for individual mailboxes. Such mailboxes have postman's doors which are closed and can be opened manually by using a central locking key when the mail is delivered. After delivery, the mailboxes are centrally locked by a device which keeps the postman's doors closed, thus preventing "junk mail" from being inserted into the postman's slots in the mailboxes. Such mailboxes are now commonly seen in condominiums and Housing Development Board ("HDB") housing estates. The market for such a product appears to be huge.

6 In September 1999 or thereabouts, Mr Tan discovered that Flexon had supplied and installed their mailboxes with lockable delivery flaps in a couple of HDB housing estates. Following such discovery, on 28 September 1999, Bean Innovations, through their solicitors, sent a letter to Flexon, claiming that they were the exclusive licensees of the Singapore patent and that Flexon had infringed their patent, and demanding, *inter alia*, that Flexon immediately cease to manufacture and supply such mailboxes which infringed their patent, and threatening to take legal action against Flexon, should their demands be not complied with.

7 In response, Flexon through their solicitors on 15 October 1999 wrote to the solicitors for Bean Innovations, denying any infringement and demanding that the latter retract and withdraw their allegations. There was a further exchange of correspondence between the two firms of solicitors. Following legal advice, Flexon instituted legal proceedings against Bean Innovations and Mr Tan (jointly referred to as "the appellants") under s 77 of the Patents Act (Cap 221), seeking a declaration to the effect that the appellants' threats of proceedings for infringement were unjustifiable, an injunction against further threats, and damages. In their statement of claim Flexon admitted to having made prototypes of, manufactured, supplied and sold mailboxes with lockable delivery flaps to a certain construction company and certain HDB housing estates, but they denied that their mailboxes infringed the patent. In the alternative, they pleaded that they were not aware of the existence of the patent and had no reasonable grounds for supposing its existence, and invoked the defence under s 69(1) of the Patents Act. The appellants in their defence disputed the validity of Flexon's claim and pleaded that Flexon were not entitled to bring proceedings against the appellants on the ground that the alleged threats, if any, fell within the scope of s 77(4) of the Patents Act. The appellants counterclaimed against Flexon damages for infringement of the patent and an injunction.

8 The case was tried before Rubin J, and at the conclusion he held that the threats made by the appellants were actionable under ss 77(1) and 77(2) of the Patents Act, and that Flexon were the aggrieved party and were

entitled to bring the action. He further held that there was no infringement by Flexon of the patent, and in consequence he allowed Flexon's claim and dismissed the appellants' counterclaim. Against his decision, the appellants now appeal.

### The appeal

9 We turn to the first issue relating to the threats made by the appellants through their solicitors. The relevant provision, which gives Flexon the right to bring this action, is s 77 of the Patents Act which, so far as material, provides as follows:

- (1) Where a person (whether or not the proprietor of, or entitled to any right in, a patent) by circulars, advertisements or otherwise threatens another person with proceedings for any infringement of a patent, a person aggrieved by the threats (whether or not he is the person to whom the threats are made) may, subject to subsection (4), bring proceedings in the court against the person making the threats, claiming any relief mentioned in subsection (3).
- (2) In any such proceedings, the plaintiff shall, if he proves that the threats were so made and satisfies the court that he is a person aggrieved by them, be entitled to the relief claimed unless —
  - (a) the defendant proves that the acts in respect of which proceedings were threatened constitute or, if done, would constitute an infringement of a patent; and
  - (b) the patent alleged to be infringed is not shown by the plaintiff to be invalid in a relevant respect.
- (3) The said relief is —
  - (a) a declaration to the effect that the threats are unjustifiable;
  - (b) an injunction against the continuance of the threats; and
  - (c) damages in respect of any loss which the plaintiff has sustained by the threats.
- (4) Proceedings may not be brought under this section for a threat to bring proceedings for an infringement alleged to consist of making or importing a product for disposal or of using a process.

10 It does not appear to us that there is any dispute that the appellants, or at least Bean Innovations, by their solicitors' letters to Flexon threatened Flexon with legal proceedings, and that these letters were a threat falling within s 77(1) of the Patents Act. During the course of proceedings, counsel for the appellants conceded that the threats of infringement proceedings were made out. It is therefore unnecessary to dwell further on this issue.

11 What the appellants now contend is that the threats fell within the scope of s 77(4) of the Patents Act on the ground that Flexon were, in fact, the makers of the mailboxes, and the threats concerned the infringing acts of making for disposal of such products, and hence no action can be

brought against the appellants under s 77(1) of the Patents Act. We are unable to accept this contention. Section 77(4) of the Patents Act only exempts threats relating to making or importing a product for disposal, or to using a process, but does not apply to other acts of infringement, such as “supplying, delivering, installing, selling and/or offering to sell” a product, or otherwise disposing of it. The threats made by or on behalf of the appellants were much more extensive. They were not confined only to the infringing acts described in s 77(4). The alleged infringing acts referred to in the appellants’ threats were the following: “making prototypes of, manufacturing, supplying, delivering, installing, selling and/or offering to sell” mailboxes, which infringed the appellants’ patent. In our judgment, the defence afforded by s 77(4) of the Patents Act cannot possibly apply to the threats made by or on behalf of the appellants.

12 In *Cavity Trays v RMC Panel Products* [1996] RPC 361, the threat was in respect of acts of promotion, marketing and sale of the alleged infringing article. The Court of Appeal held that the purpose of s 70(4) of the Patents Act of the United Kingdom (to which our s 77(4) is similar) was to enable a person to warn off primary infringers without fear of being sued for threats. It prevents proceedings from being brought for threats alleged to consist of certain acts, namely, making or importing a product for disposal or using a process. Other threats of proceedings against manufacturers or importers, for example, threats of proceedings alleging disposal or use, do not fall within the subsection. The subsection defines the acts of alleged infringement that were excluded and not the types of persons who could be threatened. It was therefore held that the threats relating to promotion, marketing and sale were not excluded by s 70(4) of the Patents Act 1977.

13 *Cavity Trays* was applied in *Brain v Ingledew Brown Bennison & Garrett (No 3)* [1997] FSR 511. Jacob J said at 525:

... section 70(4) excluded from the generality of the prohibition of section 70(1) threats in relation to certain types of infringement ... Although section 70(4) allowed a patentee to issue threats in respect of use of a process, *it did not permit threats to be made in respect of offering a process for use which was a separately identified category of infringement prescribed by the Patents Act. Thus, if the threat went beyond threatening anyone for the use of the patented process, it was actionable.* [emphasis added]

14 The appellants further contend that s 77(4) of the Patents Act refers to “making or importing a product for disposal” and that, acts of supplying, delivering, installing, selling and/or offer to sell are *ejusdem generis* and are logical adjuncts to the meaning of the word “disposal”. Such a contention is manifestly unsustainable. The alleged infringing acts of Flexon cannot be construed as an adjunct to or *ejusdem generis* to “making or importing” for disposal. In any case, what the provision refers to is “making ... a product for disposal” and not the “making or disposal of a product”. It is the act of

“making” and not the act of “disposal” that is exempted by the subsection. Threats relating to the acts of “sale and supply” are not exempted.

15 In our judgment, the defence under s 77(4) of the Patents Act is not available to the appellants. The threats contained in the letters were actionable under s 77 of the Patents Act. It follows therefore that as a threat or threats had been made to Flexon and Flexon were the aggrieved party, they were entitled to claim reliefs under s 77(3) of the Patents Act, unless the appellants prove that the acts in respect of which the proceedings were threatened constitute or, if done, would constitute an infringement of their patent. Hence, the issue now for consideration is whether Flexon have infringed the appellants’ patent.

### Infringement of patent

16 On this issue it is necessary to turn to the claims made in the specifications of the patent. By these claims, the inventor sets out the essential features of his invention for which the patent is granted, and these claims are intended to inform “persons skilled in the art”, namely, persons with practical knowledge and experience of the kind of work, in which the invention is intended to be used. The setting out of the claims in the description or specification of the patent is a statutory requirement. Under s 25 of the Patents Act, an applicant for a patent is required to set out in the application, *inter alia*, a claim or claims which are to define the matter for which protection is sought, in clear and concise terms supported by a description of his invention. In *Rodi & Wienenberger AG v Henry Showell* [1969] RPC 367 at 380, Lord Morris of Both-y-Gest said:

It is a statutory requirement that every complete specification of a patent must end with a claim or claims defining the scope of the invention claimed: the specification must particularly describe the invention and the method by which it is to be performed and must disclose the best method of performing the invention which is known to the applicant and for which he is entitled to claim protection.

Thus, the claims as stated in the specification of the patent are the principal determinant of the scope of the monopoly for which protection is provided. In *Electric & Musical Industries Ltd v Lissen Ltd* [1938] 4 All ER 221 at 224–227; 56 RPC 23 at 39, Lord Russell of Killowen said:

*The function of the claims is to define clearly and with precision the monopoly claimed, so that others may know the exact boundaries of the area within which they will be trespassers. Their primary object is to limit, and not to extend, the monopoly. What is not claimed is disclaimed ... It is not permissible, in my opinion, by reference to some language used in the earlier part of the specification, to change a claim which by its own language is a claim for one subject-matter into a claim for another and a different subject-matter, which is what you do when you alter the boundaries of the forbidden territory. A patentee who describes an invention in the body of a specification obtains no*



monopoly unless it is claimed in the claims. As Lord Cairns, L.C., said, there is no such thing as infringement of the equity of a patent ... *I know of no canon or principle which will justify one in departing from the unambiguous and grammatical meaning of a claim and narrowing or extending its scope by reading into it words which are not in it, or which will justify one in using stray phrases in the body of the specification for the purpose of narrowing or widening the boundaries of the monopoly fixed by the plain words of a claim.* [emphasis added]

and said ([1938] 4 All ER 221 at 227; 56 RPC 23 at 41):

A claim is a portion of the specification which fulfils a separate and distinct function. It, and it alone, defines the monopoly, and the patentee is under a statutory obligation to state in the claims clearly and distinctly what is the invention which he desires to protect.

17 Before us, only Claim 1 of the claims in the specification of the appellants' patent is in issue. This claim is stated as follows:

Claim 1

In a multiple slot mailbox having a plurality of individual mailboxes, said individual mailboxes each having at least one postman's trap door on at least one open panel, said individual mailboxes each further having at least one user's trap door on at least one open panel, an apparatus for preventing the unauthorized access of the postman's trap doors, said apparatus comprising:

a trap door stopper along the lower edge of each said postman's trap doors for minimising the gap between the trap door stopper and the lower edge of the said postman's trap door, said trap door stopper further having a stopper portion for wedging the lower and outer edge of said trap door;

a matrix of orthogonal bars being placed in the interior of said mailbox and directly behind the postman's trap door for wedging the lower and inner edge of said postman's trap door against the inner surface of said stopper portion when said matrix of orthogonal bars is lowered, said matrix of orthogonal bars having as its top member at least one universal biasing bar running along the width of said multiple slot mailbox, said matrix of orthogonal bars further having as its horizontal members a plurality of parallel anti-junks mail bars, said matrix of orthogonal bars further having at its vertical members of plurality of parallel bars, said vertical bars having its upper end coupled to said universal biasing bar; and

at least one master lock being disposed on the upper front panel and below said universal biasing bar for raising and lowering said matrix of orthogonal bars.

whereby the postman's trap doors can be released or closed simultaneously.

18 The question that arises now is whether this claim has been infringed by Flexon. This is essentially a question of construction of the Claim, comparing the features of such Claim with those of the Flexon invention. In construing the Claim, the words and terms thereof must be given their reasonable and sensible meaning. In *Rodi & Wienerberger AG v Henry Showell* ([16] *supra*), Lord Morris said at 380:

In the process of construing the claim (a process which must be independent of any consideration of an alleged infringement) words must be given their reasonable and sensible meaning as words in a document to be read by those versed in the subject and skilled in the prior art. But if monopoly is to result it will only be for that which has been claimed. Protection will not extend to that which might have been claimed but which, when definition was requisite, was not claimed.

Similar pronouncements were made by Lord Upjohn in his speech in that case at 391:

[T]he question is whether the relevant claim has been infringed. This is purely a question of construction of the claim read as a matter of ordinary language, in the light of the complete specification taken as a whole; but the claim must be construed as a document without having in mind the alleged infringement. What is not claimed is disclaimed. The claim must be read through the eyes of the notional addressee, the man who is going to carry out the invention described.

19 On the other hand, one must not adhere too strictly to the literal wordings of the claim. A purposive construction is to be adopted. In the leading case of *Catnic Components Limited v Hill & Smith Limited* [1982] RPC 183 at 242–243, Lord Diplock, who delivered the main speech of the House with which all the other law lords concurred, said:

My Lords, a patent specification is a unilateral statement by the patentee, in words of his own choosing, addressed to those likely to have a practical interest in the subject matter of his invention (i.e. 'skilled in the art'), by which he informs them what he claims to be the essential features of the new product or process for which the letters patent grant him a monopoly. It is those novel features only that he claims to be essential that constitute the so-called 'pith and marrow' of the claim. A patent specification should be given a purposive construction rather than a purely literal one derived from applying to it the kind of meticulous verbal analysis in which lawyers are too often tempted by their training to indulge. The question in each case is: whether persons with practical knowledge and experience of the kind of work in which the invention was intended to be used, would understand that strict compliance with a particular descriptive word or phrase appearing in a claim was intended by the patentee to be an essential requirement of the invention so that any variant would fall outside the monopoly claimed, even though it could have no material effect upon the way the invention worked.

In that case, the plaintiffs were the registered proprietor of a patent for galvanised steel lintels for use in the construction industry. Such lintels were used as support spanning the spaces above the window and door openings in cavity walls built of bricks and had at or near the rear vertical support members. The defendants manufactured lintels which were similar to those manufactured by the plaintiffs but with the rear support members inclined at six to eight degrees. The plaintiffs claimed, *inter alia*, that the defendants had infringed their patent. At first instance, the trial judge found that defendants had infringed the patent, but the Court of Appeal reversed this finding. The plaintiffs therefore appealed to the House of Lords, which allowed the appeal and held that the defendants had infringed the patent. In dealing with the essential features of the claim, Lord Diplock said at 244:

Put in a nutshell the question to be answered is: Would the specification make it obvious to a builder familiar with ordinary building operations that the description of a lintel in the form of a weight-bearing box girder of which the back plate was referred to as 'extending vertically' from one of the two horizontal plates to join the other, could *not* have been intended to exclude lintels in which the back plate although not positioned at precisely 90° to both horizontal plates was close enough to 90° to make no material difference to the way the lintel worked when used in building operations? No plausible reason has been advanced why any rational patentee should want to place so narrow a limitation on his invention. On the contrary, to do so would render his monopoly for practical purposes worthless, since any imitator could avoid it and take all the benefit of the invention by the simple expedient of positioning the back plate a degree or two from the exact vertical.

### Essential features

20 It is necessary to identify the features of the invention that are claimed in Claim 1. On the issue of infringement, the claims are the principal determinant, but the description and other parts of the specification may assist in the construction of the claims.

21 In our view, the main features of Claim 1 are the following:

- (a) A multiple slot mailbox having a plurality of individual mailboxes, each having one postman's trap door on an open panel and one user's trap door, *ie* the collection door, also on an open panel.
- (b) A trap door stopper is made along the lower edge of each of the postman's trap doors for minimising the gap between the trap door stopper and the lower edge of the postman's trap door. This trap door stopper has a stopper portion for wedging the lower and outer edge of the trap door.

(c) A matrix of orthogonal bars in the interior of the mailbox and directly behind the postman's trap door for "wedging" the lower and inner edge of the postman's trap door against the inner surface of the stopper portion, when the matrix of orthogonal bars is lowered. This matrix of orthogonal bars has (a) as its top member, one universal biasing bar spanning the width of the multiple slot mailbox; (b) as its horizontal members, a plurality of parallel anti-junk mail bars; and (c) as its vertical members, a plurality of parallel bars, these vertical bars at the upper end being coupled to the universal biasing bar.

(d) There is one master lock on the upper front panel and below the universal biasing bar, which is used for raising and lowering the matrix of orthogonal bars, whereby all the postman's trap doors in the mailboxes can be released and closed simultaneously.

Of all these features, the most essential one is undoubtedly the presence of the matrix of orthogonal bars described in item (c) above. This matrix of orthogonal bars are used to release and close the postman's trap doors. As and when mail is delivered the master lock is unlocked, and this matrix of orthogonal bars is lifted with the result that the anti-junk mail bars are in turn lifted, thereby releasing the postman's trap doors. When the master lock is locked, the matrix of orthogonal bars is moved down with the result that the anti-junk bars are moved down blocking the postman's trap doors from being opened, thereby preventing junk mail from being inserted through the postman's trap doors into the mailboxes.

### Differences between the devices

22 There are clearly differences between the two inventions, and the principal differences are the following:

(a) The Flexon invention does not have a matrix of orthogonal bars. Nor does it use a horizontal locking bar to lock the postman's trap doors. It uses stopper screws, which are screwed to a vertical bar at one side and do not extend across the entire width of the postman's trap doors. This side bar is raised or lowered by a lever at the top. Compared to this, the appellants' device (as stated in Claim 1) has a matrix of orthogonal bars (described above). This whole matrix of orthogonal bars is raised or lowered by the "universal biasing bar" at the top, as the central locking system is locked or unlocked, as the case may be.

(b) The master lock in the appellants' device (as stated in Claim 1) sits below the "universal biasing bar" which, when lifted or lowered, moves the entire matrix of orthogonal bars upwards or downwards, whereas the master lock in the Flexon device is slotted into a horizontal bar-lever at the top and this bar-lever moves the grid upwards and downwards.

(c) The bar-lever at the top in the Flexon device moves the vertical side bars up and down with each 90° turn of the key. This feature, however, is absent in the appellants' device.

In our opinion, Flexon's assembly of mailboxes does not infringe Claim 1 of the appellants' patent.

23 Mr Wong Siew Hong, counsel for the appellants, submits that the two devices perform the same or similar function, namely, that of preventing junk mail from being delivered into the mailboxes. In this regard, the appellants' invention employs a master locking mechanism to move up and down a grid, which is located just behind the mailbox doors with the horizontal members of the grid, described as "anti-junk mail bars", blocking the opening of the postman's trap doors, when the devices are in a "locked" position, thereby preventing the insertion of junk mail into the mailboxes. The Flexon device works in exactly the same manner. It employs a master locking mechanism to move up and down a grid also mounted behind the mailbox doors but with stopper screws, screwed onto the vertical bars at the side to form the horizontal members of the grid. These stopper screws prevent the inward swing of the postman's trap doors when the devices are in a "locked" position, thereby preventing the insertion of junk mail into the mailboxes. These stopper screws in the Flexon device therefore perform the same function as the horizontal bars, the anti-junk mail bars, in the appellants' device.

24 Counsel therefore relies on the similarity of function of the two devices. Both, of course, were designed to prevent the insertion of junk mail into the mailboxes. The appellants' invention uses the matrix of orthogonal bars to lock and unlock the postman's trap door, whereas the Flexon invention uses the stopper screws for the purpose. Both perform the same function. Relying on this, counsel argues that, although Claim 1 claims the essential features which are not found in the Flexon device, the absence of such features in the latter is immaterial. The Flexon device is functionally the equivalent of the appellants' device. Adopting a purposive construction, counsel submits that the Flexon device comes within the claims of Claim 1. We reject the approach.

25 In coming to this conclusion we find helpful the following passage of the speech of Lord Upjohn in *Rodi & Wienerberger AG v Henry Showell* ([16] *supra*) at 391:

[T]he essential integers having been ascertained, the infringing article must be considered. To constitute infringement the article must take each and every one of the essential integers of the claim. Non-essential integers may be omitted or replaced by mechanical equivalents; there will still be infringement. I believe that this states the whole substance of the 'pith and marrow' theory of infringement. Furthermore, where the invention, as in this case, resides in a new combination of known integers but also merely in a new arrangement and interaction of

ordinary working parts it is not sufficient to shew that the same result is reached; the working parts must act on one another in the way claimed in the claim of this patent. This is well illustrated by *Birmingham Sound Reproducers Ltd v Collaro Ltd* [1956] RPC 232 where Lord Evershed, MR delivering the judgment of the court said at page 245:

Thus the essence of the invention resides wholly in the selection and arrangement of the parts and the manner in which they interact when arranged in accordance with the invention. It is therefore essential to the invention that it should consist of the particular parts described in the claim arranged and acting upon each other in the way described in the claim.

The question therefore appears to be whether the allegedly infringing apparatus consists of substantially the same parts acting upon each other in substantially the same way as the apparatus claimed as constituting the invention. It is not enough to find that the parts comprised in the respondents' apparatus individually or collectively perform substantially similar functions to those performed individually or collectively by the parts comprised in the apparatus claimed as the appellants' invention, or that the respondents' apparatus produces the same result as the appellants' apparatus. It must be shown that the respondents' selection and arrangement of parts is substantially the same as the appellants' selection and arrangements of parts, for it is in such selection and arrangement that the appellants' invention resides.

26 The essence of the approach as urged by counsel is to construe the claim wholly functionally. Clearly, this approach is wrong. To construe the claims in the manner as urged by counsel would be tantamount to disregarding what is stated in the claims. The clear and unambiguous words employed in Claim 1 must be given their natural and ordinary meaning.

27 We should add that the well-known principle that patent claims are to be given a purposive construction does not mean that the court in construing a claim is entitled to disregard the clear and unambiguous words used to describe the essential features of a claim. In *Société Technique de Pulverisation Step v Emson Europe Ltd* [1993] RPC 513 at 522, Hoffmann LJ said:

The well known principle that patent claims are given a purposive construction does not mean that an integer can be treated as struck out if it does not appear to make any difference to the inventive concept. It may have some other purpose buried in the prior art and even if this is not discernible, the patentee may have had some reason of his own for introducing it ...

Laddie J in *Brugger v Medic-Aid Ltd* [1996] RPC 635 at 649, having referred to the preceding case quoted above, said:

The warning in *STEP v Emson* cited above has particular relevance here. If a patentee has chosen to define the characterising part of his claim in narrow terms it is not for the court to rewrite it in broader language simply because it thinks a wider form of wording would have been easy to formulate.

Even adopting a purposive construction, one cannot write words into a claim that are not there or give a meaning to a term of a claim that is contrary to its language. A caution against blurring the purposive construction approach and the re-writing of a claim was given by Graham J in *Rotocrop International Ltd v Genbournne Limited* [1982] FSR 241 at 255:

The question of equivalence and pith and marrow of course only arises in doubtful cases. The authorities establish that if it is clear from the description and claims as a whole that a particular feature is claimed as and must be regarded as essential to the invention then that is an end of the matter. Either the defendant has taken it or he has not and accordingly he has infringed or not as the case may be.

### Conclusion

28 To succeed on the infringement of their patent, the appellants must show that all the essential integers of Claim 1 are present in the respondents' invention: *Rodi & Wienenberger AG v Henry Showell* ([16] *supra*) at 391. This they have failed to do. Accordingly, their claim failed and the appeal is dismissed with costs. The deposit as security for costs, with interest, if any, is to be paid to Flexon or their solicitors to account of costs.

Headnoted by Tan Choon Kiat.

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