



Neutral Citation Number: [2021] EWHC 2145 (IPEC)

Claim No: IP-2019-000102

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY COURTS OF ENGLAND AND WALES
INTELLECTUAL PROPERTY LIST (Ch D)
INTELLECTUAL PROPERTY ENTERPRISE COURT (ChD)

Rolls Building
New Fetter Lane
London

Date: 29 July 2021

Before:

HER HONOUR JUDGE MELISSA CLARKE
sitting as a Judge of the High Court

B E T W E E N :

A W A R D A T T A C H M E N T S L I M I T E D

Claimant

- and -

F A B C O N E N G I N E E R I N G L I M I T E D

Defendant

Mr Richard Davis (instructed by **Browne Jacobson LLP**) for the **Claimant**
Mr Jonathan D. C. Turner (instructed by **Taylor's Legal Services**) for the **Defendant**

Hearing dates: 29 and 30 April 2021
Provided to the parties in draft on 24 July 2021

J U D G M E N T

Her Honour Judge Melissa Clarke:

A. INTRODUCTION

1. This is judgment in a claim for infringement of two European patents which relate to an apparatus or device for receiving freight containers directly from the bed of a truck or trailer or other delivery mechanism, and tilting them to near-vertical to facilitate the loading and unloading of bulk materials.
2. The two-day trial was heard remotely over Teams in open court. The press and public were able to attend remotely if they wished to do so. Mr Richard Davis appeared for the Claimant and Mr Jonathan Turner for the Defendant and I thank them for their skeleton arguments and assistance.
3. The Claimant is a company registered under the laws of New Zealand (including the Cook Islands, Niue and Tokelau).
4. The Claimant is the registered proprietor of two patents in suit, both of which derive from the same international patent application filed on 25 May 2007 and published on 6 December 2007 as WO 2007/139398. They are a parent patent EP 2 021 268 B1 granted on 11 May 2011 (“**Parent Patent**”) and a divisional patent EP 2 128 053 B1 granted on 9 January 2013 (“**Divisional**”). Both share a priority date of 26 May 2006. When it is convenient to do so, I will refer to the Parent Patent and Divisional together as “**the Patents**”.
5. The Defendant is a company registered in Northern Ireland. It manufactures (in Northern Ireland), offers for sale (through a website at www.fabconeng.com) and sells (including in England and Wales) light and heavy engineering equipment, including container tilting machines which the Claimant alleges infringe the Patents (“**Defendant’s apparatus**”).
6. The Defendant commenced manufacture of the Defendant’s apparatus in or around 2009. I understand there have been some changes to the design over the years, but I have not been told that they are relevant to the issues in this case. The photographs below show the Defendant’s apparatus in use. Photograph 1a shows a container being delivered to the Defendant’s apparatus on a trailer. Photograph 1c shows the Defendant’s apparatus in the process of tilting the container:



7. On 13 May 2011 the Claimant sent a ‘cease and desist’ letter to the Defendant alleging infringement of several claims of the Parent Patent (“**the C&D Letter**”). This was sent after the Claimant had applied for the Divisional, but before it was granted. It did not notify the Defendant that it had applied for the Divisional.
8. The Defendant replied on 20 May 2011 stating that it did not agree that the Defendant’s apparatus fell within the scope of the Parent Patent, giving reasons and offering to arrange for an inspection by the Claimant (the “**20 May 2011 Letter**”). The letter concluded that if the Defendant had not heard from the Claimant within 14 days, it would consider the matter closed. It is not disputed that the Claimant did not reply to the 20 May 2011 Letter.
9. It is the Defendant’s case that since no response was received from the Claimant, the Defendant believed that the Claimant had accepted that the Defendant’s apparatus was

non-infringing. The Defendant continued to develop its business selling, *inter alia*, the Defendant's apparatus.

10. The Divisional was granted on 9 January 2013. It is the Claimant's case that, unusually, the inventive concept of the Parent Patent and Divisional are the same, although the claim wording varies.
11. On 11 March 2019, the Claimant through its solicitors sent to the Defendant a Letter of Claim alleging patent infringement of the Parent Patent and the Divisional. In it, the Claimant's solicitors said that the Claimant had not responded to the Defendant's 20 May 2011 Letter as "*our client decided not to pursue the matter further, as it was focused on its own commercial activity*".
12. The Claim for patent infringement was issued on 1 July 2019. An Amended Particulars of Claim is dated 16 January 2020, to which the Defendant filed an Amended Defence and Counterclaim on 12 February 2020. The pleadings include a response to a Part 18 request of the Defendant and responses to two Part 18 requests made by the Claimant.

B. ISSUES

13. The issues disclosed in the pleadings and identified in the list of issues attached to the directions made by Mr Recorder Douglas Campbell QC at the case management conference have narrowed before and during trial. In particular:
 - i) the Claimant no longer pursues any separate case on Claim 8 and limits its claim of infringement to Claim 1 of each of the Patents;
 - ii) a suggestion in the Defendant's skeleton argument that it would seek to rely on filewrapper estoppel was abandoned by the Defendant at trial.
14. The issues remaining before me can now be identified as follows:

Infringement

- i) Whether D's apparatus infringes Claim 1 of the Parent Patent by equivalence;
- ii) Whether D's apparatus infringes Claim 1 of the Divisional;

Invalidity

- iii) Whether the Patents are invalid for obviousness over two pieces of prior art, being BE 1014698A6 ("Van Eeckhoutte") and DE 87 04 299U1 ("UKH")
- iv) Whether the Patents are invalid for insufficiency;
- v) Whether the Divisional is invalid for added matter over the Parent Patent;

Estoppel

- vi) Whether the Claimant is estopped from obtaining relief for any infringement on the basis of acquiescence.

C. EVIDENCE OF FACT

15. As is usual in IPEC, the pleadings were signed by directors of the parties and stand as evidence. Mr Kevin Hughes, director of the Defendant, also filed a witness statement upon which the Defendant relies dated 1 July 2020, but the Claimant did not require him to be called. There was no cross-examination on the factual evidence and so it is unchallenged.
16. Mr Hughes' evidence focussed on two matters: the filing by the Claimant of the Divisional and the Claimant's failure to respond to the 20 May 2011 Letter.
17. The differences between the Parent Patent and the Divisional relate to the mode of engagement as between the container and the apparatus: the Parent Patent refers to each container lock being configured to engage an end of the tilt arm with a side wall of the container, and the Divisional refers to engagement with the end walls of the container.
18. Mr Hughes infers at [15] of his witness statement *"that the motivation for the Divisional Patent was a realisation on the Claimant's part that the Defendant's container tilting product did not meet an essential integer of Claim 1 of the Parent Patent. That inference is (in my view) borne out by the Claimant's failure to respond to the 20 May 2011 letter"*. Strictly speaking, this is a matter of speculation on the part of Mr Hughes. However, the Defendant pleads at paragraph 31 of the Counterclaim that the Claimant appears to have copied this feature from the Defendant's apparatus after it came onto the market, in order to extend the Claimant's patent to cover the Defendant's apparatus, and the Claimant did not dispute this in the Defence to Counterclaim, so I accept Mr Hughes' inference as most likely correct on the balance of probabilities.
19. In relation to the 20 May 2011 Letter, Mr Hughes' evidence is that the Claimant did not respond to it, *"and the Defendant therefore believed the Claimant had accepted that the Defendant's container tilting machines were non-infringing... Accordingly the Defendant continued to develop its business in its tilting machines..."*. He says the Defendant went on to manufacture numerous examples of the machines, and had sold 71 machines from 2011 in UK, the Republic of Ireland, Poland, Russia, France, Australia, Cyprus and Lithuania. He puts the total gross sales value of the 71 machines at £3,763,000.
20. Mr Hughes also addressed what the Defendant would have done if the Claimant had maintained its infringement claim in 2011. He said:

“... we would have reconsidered our position and may well have offered undertakings to cease tilter production. At that time we had only manufactured approximately 10 machines and we may have decided it was just not worth bothering fighting the Claimant. Instead we might have spent our time and energy promoting other products, the bulk of our work at the time being in fork lift attachments. It is difficult to say what we would have done if the Claimant had persisted with its allegation of infringement in 2013 when the Divisional Patent was granted. By that time we had been manufacturing our product for 4 years and had built up sales over that period. We would have had to make the decision whether to fight a claim from A-Ward at that time or whether to stop selling the

product. I cannot say now, seven years later, which route would have been taken in 2013 but we had no decision to make because the Claimant took no steps to inform us of the Divisional Patent until March 2019 despite knowing we were continuing to compete in the container tilter market”.

D. THE EXPERTS

21. The Claimant relies on Mr Johan Adriaan Joseph Maria Dekkers, a Mechanical Engineer with over 40 years of international experience in project management, design and implementation of dry bulk handling and storage facilities for various materials. He has retired from his role as Senior Project Manager and Materials Handling Expert at Royal HaskoningDHV, but still works for that company regularly. He filed a report and was cross-examined and re-examined remotely.
22. The Defendant relies on Eur Ing Warren Lister who is also a Mechanical Engineer with over 50 years’ experience in the application, design and manufacture of a wide range of powered mobile and static machinery, including freight container handling equipment for land, sea and air transport. also filed a report and was cross-examined remotely.
23. Mr Davis submits that when giving oral evidence Mr Lister had considerable knowledge in the container field, he understood the Patents and he could explain what was going on in a knowledgeable and cogent way. However, he submits that Mr Lister’s written evidence was very seriously flawed as he took an incorrect approach to a number of issues, and he asks me to treat his written evidence with great care. He does not criticise Mr Lister but says that his instructions were extremely short so that he was left to sink or swim when producing his report.
24. Mr Turner says this criticism is unfair and although his report does not read like a real lawyers document, that makes it more authentic, not less and this should be a commendation not a criticism. Conversely, he gently criticises Mr Dekkers’ report as showing rather too much instruction, but submits that both were genuinely trying to help the court.
25. Although I understand the point that Mr Turner is trying to make (which was also made by HHJ Hacon at [22] of *Kwibolt Limited v Airbus Operations Limited* [2021] EWHC 732 (IPEC) that the preparation of expert reports in that case “*was steered by the relevant legal team with an excessively firm hand on the wheel*”), I am not with him. Mr Dekkers’ report appears to me to be a report written by a well-instructed and not over-instructed expert. There are, in my judgment, aspects of Mr Lister’s reports to criticise: he did not clearly identify the skilled addressee; he wrongly sought the inventive concept in the words of Claim 1 of the Parent Patent rather than by considering the specification of the Parent Patent as a whole; he made an assumption about a feature of the Defendant’s apparatus without checking it, which set a hare running.
26. Overall, however, I found both experts to be honest, well qualified, giving useful evidence of assistance to the Court, although I prefer Mr Lister’s oral evidence to some of his written opinions.

E. THE PATENTS

The Parent Patent

27. The Priority Date of the Parent Patent is 26 May 2006. The Parent Patent describes the Technical Field at [0001] as follows:

“[0001] This invention relates to a freight container tilting apparatus. In particular this invention may be adapted to allow truck or trailer units to be driven into the apparatus, allowing the invention to engage the side walls of a container to lift and tilt the container for a gravity driven loading or unloading operation. However, those skilled in that art should appreciate that in other instances the present invention may not necessarily be configured to work directly with truck or trailer units.”.

28. The problem that the invention is intended to solve is set out very clearly but lengthily at [0002] to [0009]. These paragraphs describe problems with using standardised shipping containers for particulate materials or other types of loads that can be poured, because they are difficult to load and unload efficiently unless tipped up and filled or emptied using a gravity-fed system. They identify the difficulty in tilting containers because of their size and their weight when loaded:

“[0006] ... It is possible to tip a shipping container using a forklift acting on the front open end of a container. However this is a slow and unstable process requiring a large, expensive and high capacity forklift. Furthermore such forklifts are limited with respect to the maximum angle to which they can lift a container tilt a container.

[0007] It is also possible to tilt a container through the use of cranes or articulated lifting arm systems. Container lifting arms have been developed to lift and lower containers from the beds of trucks or similar vehicles. However, these systems are focused towards only displacing a container sideways and down to unload a container or the reverse operation to load a container onto a truck or trailer bed.

[0008] Cranes do have the potential to lift one end of a container allowing the opposite end to swing freely in the air as the container is lifted. As can be appreciated by the skilled in the art, this is a dangerous operation as gusts of wind or knocks to the container may cause it to swing around wildly.

[0009] It would be preferable to have a container tilting apparatus which addressed any or all of the above problems. In particular a container tilting apparatus which could tilt a container to a high angle of inclination both safely and quickly would be of advantage.”

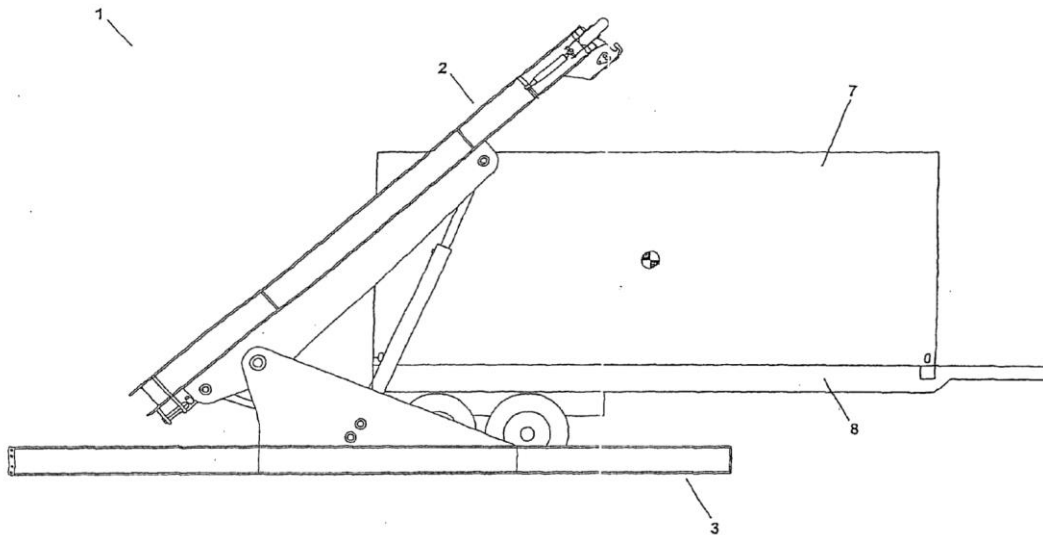
29. The invention is introduced as the solution to the problem at [0010]:

“[0010] Documents BE 1014698 A6 and DE 195 23 225 A1 disclose a freight container tilting apparatus for tilting a freight container between a horizontal position and a tilted position, the apparatus comprising a base section, a pair of tilt arms directly pivotably connected to the base section at a pivot point, and a tilt arm drive to pivot the tilt arms relative to the base section, wherein each of the tilt arms is provided with a container lock at both ends to engage an end of the tilt arm with a corner fitting of the freight container, wherein the pivot point is offset from the centre of the tilt arm and the position of the pivot point relative to the base is fixed

while the freight container is being tilted. The pivot point is at one end of the tilt arm.”

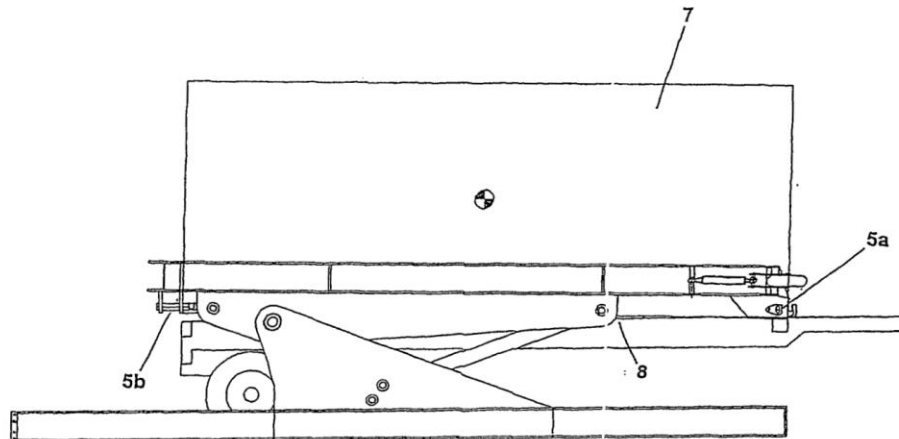
30. The figures of the Parent Patent illustrate a number of examples. The following represent the same example and I include them here to assist in understanding of the discussion that follows. Figure 2 shows a container being delivered on a trailer to this example of the patented container tilting apparatus:

FIGURE 2



31. Figure 4 shows the container loaded onto the same example of the patented container tilting apparatus and ready to tilt.

FIGURE 4



32. Paragraphs [0018] to [0024] of the Parent Patent specification seek to enlarge the scope of the patent by making clear that certain descriptions in the specification are not intended to be limiting. A number of these paragraphs teach that the tilt arms of the tilting apparatus engage with the side walls of the container: see for example [0021] (“...allowing the tilt arms to grasp and engage with the side walls of a container”); [0023] (“The present invention includes at least two tilt arms which are to be engaged with the side walls of a container to be tilted”); and [0024] (“A tilt arm may consist of substantially straight length of material which can be placed into contact with the majority of a sidewall of a container”). However, I note that these paragraphs do not say that the references to the side walls are not intended to be limiting.
33. Paragraphs [0025] to [0058] set out and discuss many alternative embodiments. For example, [0025] to [0028] of the Parent Patent teach differing potential arrangements of the tilt arms in different embodiments, including tilt arms with adjustable lengths ([0026]); hinged in two parts ([0025]); linked together ([0028]) or also including a hinge lock and arm support system ([0027]).
34. [0041] teaches that the container tilting apparatus includes container locks at both ends of the tilt arm which engage the tilt arm with a side wall of the container, and this is an area of dispute between the parties in relation to infringement:
- “[0041] Each of these container locks is configured to engage a tilt arm with a side wall of a container. This arrangement of container locks allows a container on a truck or trailer bed to be driven between each of the tilt arms, with these arms subsequently being engaged with the side walls of the container to enable the tilt arms to lift and tilt the container.
35. [0042] to [0045] teach how the container may be secured or locked into the assembly in different embodiments. For example, [0042] gives one possibility:

[0042] The front lock may engage with the **front end of a container's side wall** adjacent to a door through which the container is loaded. Conversely, the rear container lock may engage with the opposite **rear end of the container side walls**. These front and rear container locks provide four connection points across both of the tilt arms, securely locking the side walls of the container against each of the tilt arms.”

36. Mr Davis for the Claimant sought to argue that this involved indication with the end walls of the container, but I am satisfied it does not. Careful reading shows that the references to ‘front end’ and ‘rear end’ are not to end walls but those ends of the side walls.
37. [0044] and [0045] however, do refer to front and rear locks projecting into the front and rear walls, and not the side walls, of the container:

“[0044] In a preferred embodiment a front lock may consist of or incorporate a pivoting hook section disposed on the front end of a tilt arm, which may be pivoted into a position to lie substantially parallel to a side wall of a container which the tilt arm is to engage. Such a front lock may engage the container through the use of an L-section bolt where a short projecting end of this bolt can be located **within a cavity formed in the front wall or end of the container**.

[0045] In a preferred embodiment a rear container lock may include an alignment shaft and a separate screw clamp. This alignment shaft may project towards the rear end of the container to be engaged, and when used can **project into an aperture or cavity in the rear wall of the container**. This alignment shaft can be used to correctly align and position a container as it is initially moved back into the tilting apparatus”.

38. The front-end engagement described in [0044] (and later at [0075]) seems quite complicated to understand, but Mr Dekkers included in his report his sketch of what he considered that was teaching, with which Mr Lister agreed, and both experts confirmed in oral evidence that the skilled addressee would similarly understand it. Mr Dekkers agreed that although the pivoting hook section engages with the side of the corner fitting and the bolt provides clamping, and although both may engage with the front end or corner casting of the front end of the container, what it clamps and what the tilt arm engages with is the side wall of the container. Mr Lister in his report described that L-bolt (which he thought would be better as a J-bolt, but nothing turns on it) as hooking into the front aperture of the container's front corner casting, i.e., on the front end wall, not side wall, but explained that he considered that nonetheless, that caused engagement of the tilt arm with the side wall of the container:

“Once the other end of the bolt is rotated and entered into the slot, it pulls sideways, clamping the side of the corner casting against the tilt arm. This is a side engagement. The corner casting is an integral part of the container end frame. It is not part of the ‘*front wall*’ of the container. Therefore, the engagement is with the ‘*side*’ of the container.” (emphases in the original).

39. The same point was made in relation to the rear arrangement described in [0045] (and later at [0074]). Mr Lister accepted in cross-examination that this involved a two stage-operation, where an alignment shaft engages with the end aperture of the

container, i.e., on the end wall of the container and then a screw clamp tightens to engage the tilt arm with the side of the container. I accept the experts' evidence that these embodiments which teach using a pivoting hook and bolt or screw clamp to engage the vertical apertures in the corner castings at the front or rear ends of the container are a method for engaging the tilt arms with the side walls of the container.

40. However, Mr Lister agreed in cross-examination by Mr Davis that the skilled person would realise that this was one way of engaging the tilt arm with the container, but there were other means of engagement which could also be used. This is quite an important point, and one which was also made in cross-examination by Mr Dekkers. He said "*I am convinced that the person skilled in the art, knowing what he is reading, would understand that this embodiment that is discussed in the patent will form a lock, because it secures the container into the apparatus; and the way it is done in the patent is by the side walls; and there may be other ways that are also equally good. It is one of the possibilities*".
41. The patent teaches the simplicity of the container loading and unloading operation from the bed of a truck or trailer unit to the apparatus from [0055] to [0057] in a preferred embodiment.
42. From [0059] onwards, the specification sets out "*potential advantages over prior art lifting systems*" which include at [0060], once again, that the invention can be "*optimised or adapted to engage with freight containers supported on the bed of a truck*".
43. From [0065] to [0091] there is then an example, headed "Best modes for carrying out the invention" with reference to accompanying drawn figures. I have set out two of those figures above. This example describes at [0071] to [0075] the process of engaging the container with, and securing it to, the apparatus including teaching about the front and rear locks in substantively similar terms to [0044] and [0045].

Claim 1 of the Parent Patent

44. Claim 1 of the Parent Patent (with the structural elements emboldened) reads:

"A freight container tilting apparatus (1) for tilting a freight container between a horizontal position and a tilted position for loading or unloading the container, the apparatus comprising:

a base section (3),

first and second tilt arms (2), each of the tilt arms being pivotably connected to the base section, and each of the tilt arms being configured or configurable to extend along substantially the whole length of the container to be tilted, first and second ends of each of the first and second tilt arms corresponding to opposite ends of the container,

a container lock (5a, 5b; 15a, 15b, 15c) at the first and second ends of each of the first and second tilt arms, each container lock being configured to engage an end of the tilt arm with a side wall of the container, and

at least one tilt arm drive (9) configured to pivot each tilt arm relative to the base section,

wherein each tilt arm is directly pivotably connected to the base section at **a pivot point** (4) between the container locks at the first and second ends of the tilt arm and offset from the centre of the tilt arm, and the position of the pivot point relative to the base is fixed while the container is being tilted; and the height of the pivot point above a support surface used to support the base section is greater than the distance between the pivot point and the end of the tilt arm nearest the pivot point”.

The Divisional

45. Claim 1 of the Divisional reads as follows:

A freight container tilting apparatus for tilting a freight container between a horizontal position and a tilted position for loading or unloading the container, the apparatus comprising:

a base section (3),

first and second tilt arms (2), each of the tilt arms being pivotably connected to the base section, and each of the tilt arms being configured or configurable to extend along substantially the whole length of the container to be tilted, respective ends of the first and second tilt arms corresponding to opposite ends of the container;

a front lock at the first [e]nd of each of the first and second tilt arms, a rear lock at the second [e]nd of each of the first [a]nd second tilt arms, wherein the front locks are configured to engage the first end of the first and second tilt arms with the front wall of the container, and the rear locks are configured to engage the second end of the first and second tilt arms with the rear wall of the container;

a tilt arm drive (9) configured to pivot each tilt arm relative to the base section, wherein:

each tilt arm is directly pivotably connected to the base section at a pivot point between the front lock and the rear lock at the respective ends of the tilt arm and offset from the centre of the tilt arm,

the position of the pivot point relative to the base is fixed while the container is being tilted; and

the height of the pivot point above a support surface used to support the base section is greater than the distance between the pivot point and the end of the tilt arm nearest the pivot point.

46. Claim 1 of the Divisional has the same five basic structural elements as Claim 1 of the Parent Patent although the wording is different. The most significant differences between the Divisional and the Parent Patent are that references to the tilt arms engaging with the side walls of the container have been replaced with references to the tilt arms engaging with the front and rear end walls of the container. I will address the differences further, to the extent relevant, in my discussion of the added matter issue.

F. THE SKILLED ADDRESSEE

47. Neither party suggest that there is a difference of skilled addressee as between the Parent Patent and the Divisional.
48. The Claimant relies on Mr Dekkers' identification of the skilled addressee as an engineer with a mechanical engineering degree or relevant practical engineering experience in the field of equipment used in the transport of bulk materials, who either has some experience in the field of freight containers or who would consult someone with additional experience in the field of freight containers.
49. The Defendant did not ask its expert Mr Lister to address who the skilled addressee is, but in paragraph 3.1.3 of his report Mr Lister addresses the common general knowledge of the "*average unimaginative designer versed in the field of container handling equipment design*" who is versed "*in the arts of mechanical, electrical and hydraulic systems design in general, and capable of designing and stressing large machines comprising metal fabrications and proprietary components and fittings*". On the basis of this description, Mr Turner submits that the skilled addressee is a person who designs equipment for handling containers, and not someone who is specifically concerned with handling bulk materials as such, as that could be limited to moving bulk materials for loading into ships along conveyor belts and other methods which have no real relevance to this invention. I think that ignores the possibility that someone concerned with handling bulk materials may well be very interested in a new method of achieving containerisation of bulk materials and handling them in that way.
50. I accept the Claimant's submission that although Mr Lister's skilled addressee comes at it as a containerisation expert looking at how things are done in the bulk-handling world, and Mr Dekkers' comes at it as a bulk-handling expert looking at the possibilities of containers, there is little which turns on the difference between those perspectives.
51. In my judgment the skilled addressee is an engineer **either**: (i) in the field of equipment used for handling bulk materials, who has some experience in the field of container handling or who would consult someone with that experience; **or** (ii) in the field of container handling, who either has some experience in the field of handling bulk materials or who would consult someone with that experience. In both cases I consider they would have the same common general knowledge at the priority date, as I now turn to address.

G. THE COMMON GENERAL KNOWLEDGE

52. Mr Dekkers deals with the common general knowledge of the skilled addressee in the art of bulk materials handling at the priority date in detail in his report. Mr Davis has summarised his evidence in a bullet point list at paragraph 16 of his skeleton argument. From my reading of Mr Lister's report and his oral evidence I do not understand him to dispute any of those points as being within this common general knowledge, and Mr Turner did not submit otherwise.
53. Mr Lister made additional points about what would be within the common general knowledge of the skilled addressee in the art of container handling in his report.

Although there was one area of dispute which I will deal with when I come to look at construction (relating to locks), it was clear from Mr Dekkers' oral evidence that he generally deferred to Mr Lister in relation to the common general knowledge to be imputed to the skilled addressee with expertise in container handling.

54. Putting those together, I am satisfied that the common general knowledge of the skilled addressee in the art of both bulk materials and container handling includes that:
- i) Bulk materials were generally transported in specialised bulk carriers and not ISO containers;
 - ii) The bulk material would be loaded and unloaded either discontinuously (using a crane) or continuously (using belt conveyors or the like);
 - iii) Standardised containers were well known and are commonly designed, built and tested in compliance with ISO (International Organisation for Standardisation) standards, and formerly in the UK to BS 3951;
 - iv) The skilled addressee would be familiar with relevant key standards and codes of practice, including ISO 830:1999 (EN) 'Freight Containers Vocabulary' ("ISO Vocab Document") and those documents listed at 3.1.3 and 3.14 of Mr Lister's report;
 - v) He would also know about the relevant proprietary container components available on the market, including ISO corner castings, container walls and doors, container floors and roofs;
 - vi) Such containers were rectangular in shape. Viewing a container from the top, it is convenient to refer to the longer dimension as the 'sides' and the shorter dimension as the 'ends';
 - vii) In the container handling world, the 'rear' end of the container is normally taken to mean the end with doors, and the 'front' is normally taken to mean the closed or blind end of the container opposite the door end. Although it is acknowledged that the Patents are drafted with the reverse terminology which the skilled addressee might find confusing (i.e., describing the container end with doors as the "front"), they would be able to understand what was meant by it;
 - viii) Containers had eight fittings or castings located at each corner which provide means of supporting, stacking, handling and securing them. These corner castings were the primary means by which they were secured;
 - ix) These corner castings were themselves standardised, each having three apertures, one in the horizontal plane (top or bottom) and two in the vertical plane (side and end);
 - x) A 'twistlock' was a common term for a standard locating and locking mechanism with a rotating head, used in conjunction with standard matching container corner castings. There were retractable and non-retractable twistlocks. There were also marine twistlocks which are used to secure a container to a deck of a ship, which are not relevant for the purposes of these proceedings;

- xi) The most common means of securing a container to either a crane or a trailer was either from the top or from the bottom respectively, by using a ‘twistlock’ in the horizontal plane aperture. These apertures in the horizontal plane were effectively the same and different from apertures on the container sides and ends, i.e. in the vertical planes, which could not be used with standard (i.e. non-marine) twistlocks;
- xii) The skilled addressee would have detailed knowledge of a range of other different types of locking mechanism in common usage to engage containers.

H. CONSTRUCTION OF THE CLAIMS

- 55. It is for the Court to construe the patent objectively, adopting the mantle of the notional skilled addressee to whom it is directed, and in the light of the common general knowledge with which the skilled addressee is assumed to be imbued (*Dyson v Hoover* [2001] R.P.C 26 at [48f]).
- 56. There is a dispute about the meaning of the term ‘container lock’ in Claim 1 of the Parent Patent and the normal meaning of the word ‘lock’ as used, inter alia, in Claim 1 of the Divisional and as part of the term ‘container lock’ in Claim 1 of the Parent Patent.
- 57. In Mr Lister’s report he defined ‘container lock’ as a technical term interchangeable with ‘twist lock/twistlock’ or ‘container twist lock’. Mr Lister initially agreed in cross-examination (but then said he wasn’t sure), that there was no definition of the term ‘container locks’ in the ISO Vocab Document. No such ISO definition has been put before me. He said that every skilled person would understand ‘container lock’ to mean “*much the same thing [as twistlock] in common parlance*”.
- 58. However, Mr Lister also accepted that the Parent Patent taught that a ‘container lock’ engaged the end of a tilt arm with a corner casting or fitting of a container (see, for example, [0010]) and that could only be a reference to the apertures in the vertical plane, as until the container was so engaged it was likely to be affixed to a truck or trailer with twistlocks in the horizontal plane. He accepted that the apertures in the vertical plane were not designed to be used with standard (i.e. non-marine) twistlocks. Similarly, Mr Dekkers in cross-examination referred to twistlocks being used in the horizontal plane: “*...either from above when you use a crane with a spreader, or you connect it to the truck bottom by twistlocks*”.
- 59. For those reasons I am satisfied that the skilled person (i) would not understand ‘container lock’ in the context of the Parent Patent to mean ‘twistlock’ and (ii) would not read it as a technical term with a specific meaning.
- 60. Mr Lister seeks to provide, at paragraph 3.6.1 of his report, a definition of the word ‘lock’ which is, in my view, fairly complex and specific. He opined at 3.14.2 that “*the term ‘lock’ is less clear [than the term freight, which he found to be sufficiently clear], because its established meaning in the freight container field is an established design of engagement device that restrains containers in all three primary axes, whereas it is used in the context of the Patents to describe purpose built non-standard devices that restrain containers in only two primary axes*”. In other words, he opines that ‘lock’ is a technical term, and that when the court construes the claims through the

eyes of the skilled addressee, it will be reading that word with the technical meaning in mind. However, it can be seen from his paragraph 3.6.4 that this opinion is based on equating ‘locks’ with ‘container locks’ and ‘container locks’ with ‘twistlocks’, and I have rejected his opinion that ‘container locks’ is a term of art interchangeable with ‘twistlocks’.

61. In my view this is all unnecessarily complex. I do not consider that ‘lock’, which is an ordinary English word, is a technical term. Mr Dekkers’ opinion is that the skilled person would understand lock as an ordinary English noun. When it was put to him in cross-examination by reference to a particular embodiment that it was unclear what ‘lock’ meant, he said “*I am convinced that the person skilled in the art, knowing what he was reading, understands that this embodiment that is discussed in the patent will form a lock, because it secures the container into the apparatus and the way it is done in the patent is by the side walls and there may be other ways that are also equally good*”.
62. For those reasons, in my judgment the word ‘lock’ causes no difficulty in construing the claims in context. Mr Turner in closing sought to distinguish between the ambit of the word ‘lock’ as a verb and as a noun, but for the purposes of construing the Claims, it is only used as a noun. In respect of the specification of the Patents as a whole, I am satisfied that the skilled addressee would understand the difference between ‘a lock’ and ‘to lock’.
63. I am also satisfied that that ‘container lock’ as used in the Parent Patent would be read by the skilled reader as meaning any suitable mechanism for locking the container to the apparatus including, for example, barrel bolts, L-bolts and J-bolts.

I. INVENTIVE CONCEPT

64. The Claimant advances a case on infringement of Claim 1 of the Parent Patent only on equivalence, not normal construction. The question is whether the Defendant’s apparatus nonetheless falls within the scope of Claim 1 of the Parent Patent because it varies from the invention according to the normal construction in a way or ways which is or are immaterial.
65. This engages the guidance given by the Supreme Court in *Actavis UK Ltd v Eli Lilly & Co* [2017] UKSC 48, [2017] RPC 21, having considered, inter alia, *Improver Corp v Remington Consumer Products Ltd* [1990] FSR 181, from which had been drawn the ‘*Improver* questions’. Lord Neuberger considered and reformulated the *Improver* questions in *Actavis*. The *Actavis* questions are:
 - i) Notwithstanding that it is not within the literal meaning of the relevant claim(s) of the patent, does the variant achieve substantially the same result in substantially the same way as the invention, i.e. the inventive concept revealed by the patent?
 - ii) Would it be obvious to the person skilled in the art, reading the patent at the priority date, but knowing that the variant achieves substantially the same result as the invention, that it does so in substantially the same way as the invention?

- iii) Would such a reader of the patent have concluded that the patentee nonetheless intended that strict compliance with the literal meaning of the relevant claim(s) of the patent was an essential requirement of the invention?
66. To establish infringement by equivalence, it is for the patentee to establish that the answer to the first two *Actavis* questions is ‘yes’ and the answer to the third question is ‘no’. However in order to answer the first *Actavis* question, it is necessary to identify the inventive concept of the Parent Patent.
67. Mr Davis submits that this requires the Court to look beyond the wording of the claims of the Patent, because if all it is doing is looking at the claims, it is just looking at the normal construction of the patent. I agree, as I held in *Excel-Eucan Ltd v Source Vagabond Systems Ltd* [2019] EWHC 3175 (Pat). As the authors of *Terrell* point out at 14-33 on page 433, the approach taken by Lord Hoffman in *Kirin-Amgen Inc v Hoechst Marion Roussel Ltd* [2005] RPC 9, who considered that the first *Improver* question had to be answered by describing the working of the invention at the level of generality with which it is described in the claim, was specifically considered and qualified by Lord Neuberger at [60] of *Actavis* when he formulated (or reformulated from *Improver*) his first *Actavis* question.
68. Since *Actavis* there has been judicial consideration about what is meant by the ‘inventive concept’, as it is not a phrase that is found in any of the relevant UK or European patent legislation. Lord Kitchin described it in *Icescape* at [72] as “*the problem underlying the invention and the patent’s inventive core.*” In *EValve Inc v Edwards Lifesciences Ltd* [2020] EWHC 514 (Pat), Birss J (as he then was) said at [315] that “*one should examine what is the problem underlying the invention and how does the patent solve that problem*”.

Claimant’s position

69. The Claimant identifies the inventive concept of both the Parent Patent and the Divisional in paragraph 8A(1) of the Particulars of Claim as:
- “... the provision of a freight container tilting apparatus having a base section two pivotably connected tilt arms those arms having an offset pivot and the height of that pivot from the base being greater than the distance between the pivot and the nearer end of the arms as more fully set out in integers A, B; B1, B2, D, E1, E2 and E3 of claim 1 of the Parent Patent and/or Divisional Patent”.
- but this, without more, tells me very little about the problem that the invention proposes to solve and does not, in my view, adequately explain the inventive core of the Parent Patent as claimed.
70. At trial, however, the Claimant also relied on additional points identified in paragraph 13 of the Amended Reply and Defence to Counterclaim as advantages of the Patents over the prior art:
- i) the fact that the respective ends of the container can rotate around the pivot point meaning that the stresses on the pivot point are more evenly spread and the force required to tilt the container is thereby reduced;

- ii) that the rear end of the container may be tilted upwards with respect to the front of the container thus permitting the freight container to be lifted off a trailer bed; and
 - iii) that the apparatus features 'drive-in' loading and unloading of the container from a conveying truck.
71. Mr Turner noted in his closing submissions that these points were pleaded with respect to the prior art and not the inventive concept of the patent, but made clear that he did not object to the Claimant's reliance on them, because he felt they helped the Defendant's case as a whole.
72. Mr Davis relies particularly on points (ii) and (iii) to augment his client's pleaded case on the inventive concept, and in his skeleton and oral submissions he also refers to Mr Dekkers' opinion, as expressed at paragraph 67 of his report, that the inventive concept revealed by the Parent Patent is:
- “an apparatus which allows a container to be easily secured and lifted from a truck bed or the like and then allow for the container to be tilted from horizontal up to 90 degrees. This is achieved via 2 'mirror-like sections' (described in the Patents as tilt arms) which allow a truck carrying a container to move between them, while the positioning of the pivot allows the container to be easily lifted from the truck and tilted without the end of the container hitting the ground.”
73. The Claimant also points to Mr Lister's consideration in his report of the functionality and advantage of the invention, and submits that the experts have come to very similar conclusions about what they consider the inventive concept to be. I will return to look at Mr Lister's report shortly.

Defendant's primary position

74. The Defendant's primary position is that the Parent Patent does not disclose an inventive concept at all. In closing, Mr Turner argued this in several ways.
75. First, he submits that at the Parent Patent priority date it was not common for people to transfer bulk materials in containers, so it was not within the common general knowledge to have tilting machines at all; so the invention was a wholly new machine with a wholly new combination of features which amounted to the identification of a new market; and this was not an invention or a cleverness of a kind that is normally protected by the patent system.
76. I do not accept that submission which, with great respect to Mr Turner, was not made in terms which I found easy to understand:
- i) If it is an argument that the invention is too novel to be protectable, then it should not need to be said that is not sustainable as a matter of law. Section 1(1) of the Patents Act 1977 ("Patents Act") provides that a patent may only be granted for an invention which is new, involves an inventive step, is capable of industrial application, and does not fall into the exclusions contained in subsections 1(2) or 1(3). It puts no limitation on the extent of novelty, and of course the purpose of the patents system is to encourage inventiveness and innovation;

- ii) If it is an argument that it is not an invention at all but only the identification of a new market, and so, perhaps (although Mr Turner did not specify this) it falls within the exclusion in section 1(2)(c) of the Patents Act as a scheme, rule or method for doing business, then firstly, it is not pleaded by the Defendant, nor did the Defendant identify this as an issue in the CMC, nor does it counterclaim for invalidity of the Patents on this basis, and secondly the argument is hopelessly misconceived, in my judgment. The invention claimed is self-evidently not the identification of a new market but a freight container tilting apparatus, and this is made clear in the first nine words of the Parent Patent specification.
77. Secondly, Mr Turner argued that Mr Lister could not identify an inventive concept. It is true that in paragraph 3.5.3 of his report, Mr Lister says that “*I can see no ‘inventive concept’ in Claims 1 of either Patent*”. He makes what I think is a similar point in paragraph 3.5.5: “*The inventive step is not clearly stated in Claim 1 of either Patent*”. However, as I have already stated, the Court must look wider than the claims to identify the inventive concept, and Mr Lister does, in fact, then go on in his report to give his opinion on:
- i) the express purpose of the invention (in respect of both the Parent Patent and the Divisional) in paragraph 3.5.3 of his report:
- “3.5.3 From the Parent and Divisional Patents’ texts, the express purpose of the invention is to tilt standard shipping freight containers to a vertical orientation... with its open doors uppermost and load loose bulk and fragmented cargo into it, to its maximum volumetric capacity, and then lower it back to the horizontal again and to unload such containers by tilting to the vertical orientation with its doors downmost, and that these functions are to be faster safer, cheaper and easier to carry out than was achievable by other known equipment at the time.”;
- ii) what the ‘inventive step’ “may be”(although seems to me he is really identifying the possible inventive concept) in paragraph 3.5.5:
- “- To depart from the conventional and proven method of picking up freight containers by their top corner casting using standard container locks (twist locks) which secure the containers in all three primary axes, and instead **pick the container up from the bottom corner castings using bespoke engagement fittings which secure the containers in only two primary axes, to overcome the lack of access for standard container twist locks;** and
- To avoid the cost of using two pivot points and a jacking system to raise the container clear of the trailer and spigots or twist locks thereon, by **using small amounts of rotation around a single pivot axis to lift the container clear of the vehicle.**” (my emphases); and
- iii) the benefits of the invention in paragraph 3.5.6:
- “3.5.6 This method of handling freight containers is intended to reduce cost, increase reliability, and make the process of loading and unloading 20’ and

40' freight containers in a vertical orientation by gravity, faster, safer, cheaper and easier than other known prior-art tilters”.

78. In these three sections Mr Lister has, in my judgment, identified what he considers to be the problem the invention proposes to solve, “the clever bit” or the inventive core, and the benefits of the invention, or why the clever bit is, in fact, so clever. In none of these does he refer to or focus on engagement of the tilt arms with the side walls of the container.
79. In addition, in cross-examination, Mr Lister accepted that what was different in the Parent Patent over the common general knowledge was the functionality of loading the container from the trailer into the tilter without any intervening means, and without the need to use a forklift truck or a crane; and the fact that the user tilts the tilt arm first one way, attaches a container lock at one end, then the other way, attaches a container lock on the other end, and then back to the level so the trailer or other means of delivering the container to the apparatus can be removed. These are the main advantages which Mr Davis pressed in closing as forming the inventive concept and they are also the parts of the invention which Mr Dekkers got excited about in cross-examination. Mr Dekkers said that there were two ways of turning a container up to the vertical to load it with bulk materials:

“The one way would be more difficult and requiring more equipment and the other way would be clever, like the patent design.

...

Before the priority date, if I wanted to load a container or unload a container, the normal practice would be a container would arrive on a truck. Then I would need a crane or a big forklift truck with a spreader, which I could put on top of the container. Then, you would loosen the twistlocks on the truck, you would attach the twistlocks to the container at the top, you would lift the container and put it on a platform. Then this platform normally, I refer to the Belgium patent where you see this platform that could be tilted, normally, then, this container would be put on that platform and the platform would be raised to let us say 50 degrees because it was normally used for unloading. Then you would bring down to the horizontal and again you had to take this crane or big forklift truck to lift the container from the platform and put it on the truck again.

...

In my view, the brilliance of this patent design is that all these functions are combined in one machine. What I feel is brilliant is that you put two mirror-like constructions, tilt arms, and you let the truck pass in between them. Then, of course, you can say a lever system is known to everybody, but... a newer invention, of course, always uses existing elements to become a new design or concept.

What is brilliant is normally you cannot determine what the height of the truck is, where the container is put on. So when you have the truck in between the tilt arms, the brilliance is that you can raise or lower the tilt arm to connect the rear side and then lift it a little bit to connect to the front side, all in one

machine. Then the truck can leave, and you can tilt it up to 90 degrees. Also the pivot point allows you to do that and allows that the bottom of the container will not touch the ground, and also the base of this machine extends -- well, in the view of the patent -- to the left hand side to create stability for the whole installation.” (my emphasis).

80. As Mr Davis submits, it can be informative for the Court to look closely at what it is about an invention that gives an expert in this field a ‘buzz’, and Mr Dekkers was clearly energised by what he considered to be the “*brilliance*”, or the clever bit, that he perceived in the invention. Again, although Mr Dekkers described the tilt arms as brilliant because they allow the truck (or other container delivery mechanism) to pass between them and because they can then be raised and lowered to remove the container directly from the mechanism as he explained, in his animated discussion of why the invention was so brilliant he did not refer to engagement of the tilt arms with the side walls of the container.
81. Thirdly, Mr Turner argued that it is difficult or impossible to discern the inventive concept because the Parent Patent itself does not flag which features it is treating as the central core of the invention.
82. I also do not accept this submission. The Parent Patent is, in my judgment, of significant assistance in determining the inventive concept, in part because of the clarity by which it articulates the problem to be solved but also by its detailed teaching about alternative configurations and embodiments and preferred features that those skilled in the art should appreciate are possible within the scope of the invention. For example, I do not accept that the base section is within the inventive concept, as is the Claimant’s pleaded case, because the Parent Patent identifies at [0033] of the specification that in an alternative embodiment the container is received from, or delivered to, a railway carriage, and in that case tracks on which the carriage runs between the tilt arms can eliminate the need to use a base section. As I have set out above, both Mr Lister and Mr Dekkers were able to identify from the Parent Patent specification what they consider to be the inventive core, and I am satisfied that they have arrived at very similar conclusions.

Defendant’s alternative position

83. Alternatively, Mr Turner submits that if I am not with the Defendant on the Parent Patent disclosing no inventive concept at all, then the inventive concept, if there is one, must include the engagement of the tilt arms with the side walls of the container. To support this submission he points to the myriad references to engagement with the side walls throughout the Parent Patent starting with the first paragraph; that Mr Dekkers agreed in cross-examination that throughout the Parent Patent, whenever it refers to connecting the apparatus to the container, it talks about engaging the tilt arm with the side wall of the container; and that Mr Dekkers agreed that the skilled addressee reading the Parent Patent would be left in no doubt that what the patentee was describing as his invention was a device which grips the container by the side walls. I accept the truth of all these submissions. Mr Turner submits that the Defendant’s case on this point is strengthened by the additional points that the Claimant seeks to rely on from the Reply and Defence to Counterclaim, namely the desirability of being able to connect the container easily to the tilt arms at the beginning of the operation in a quick and practical way.

84. Despite Mr Turner's well-made arguments on this point, which I have thought about very carefully, on balance I do not consider engagement of the tilt arms with the side walls of the container is part of the inventive concept of the Parent Patent, although it is undoubtedly part of its disclosure. As I have noted, Mr Dekkers' evidence was that the container can be secured into the apparatus by engagement of the tilt arms to the side walls, but that he was "*convinced that the person skilled in the art, knowing what he is reading, would understand that ...there may be other ways that are also equally good*".
85. In my judgment the inventive concept, which solves the problem of how to tilt containers to load and unload them with bulk materials simply and easily without having to handle them with a forklift truck or crane, is a container tilting apparatus with at least two pivotably connected tilt arms which allows a container to be: (i) delivered directly to it by a trailer or like delivery mechanism; (ii) secured to the apparatus in the vertical plane; (iii) released from the delivery mechanism (which can then be removed) by using small amounts of rotation around a single offset pivot; and (iv) tilted from horizontal up to 90 degrees to enable gravity-driven loading or unloading; and this process can be reversed once the tilting operation is completed.
86. These are the elements which make up the inventive core, in my judgment, as both experts separately also identified, not the specific details of how and where the apparatus engages with the container.

J. INFRINGEMENT

Does Defendant's apparatus infringe Claim 1 of the Parent Patent?

87. The Defendant accepts in the Defence that the Defendant's apparatus comprises a base section, first and second tilt arms, a tilt arm drive and a pivot point arranged in accordance with and having the relevant functionality of Claim 1 of the Parent Patent and the Divisional.
88. The Defendant's case is that the Defendant's apparatus is non-infringing because:
- i) the Defendant's apparatus does not have a container lock at the ends of each of the tilt arms as claimed in Claim 1 of the Parent Patent; alternatively, if it does,
 - ii) these locks are configured to engage an end of the tilt arms with the end walls of the container rather the side walls as specified in Claim 1.
89. Accordingly a key issue in relation to infringement is how the Defendant's apparatus engages with the container at its front and the rear.
90. The Defendant's apparatus has a non-moveable rear gate bolted onto and extending between the rear ends of the tilting arms. Bullet-shaped pins or spigots mounted on the rear gate fit into the end apertures of the corner container fittings in the vertical plane when the container is moved into position and engaged with the Defendant's apparatus. The vertical elements of the rear gate also have holes through which longitudinal pins (or barrel bolts) are inserted into the side apertures of the corner container fittings in the vertical plane, once it is in position in the Defendant's apparatus.

91. The front ends of the tilt arms are connected to hydraulically operated members that are actuated to wrap around the front end of the container when it is in position. Bullet-shaped pins or spigots mounted on these members fit into the front apertures of the corner container fittings in the vertical plane at the front (doors) end of the container.
92. Taking the first point first, the Claimant submits that the Defendant's apparatus has structures at each end of the tilt arm that secure the container to the tilt arm to allow it to be removed from or replaced onto a truck or trailer. These are secured to allow the container to be tilted and filled, and disengaged after the container has been positioned back onto the trailer.
93. The Defendant in its Amended First Part 18 Response pleads that it construes "container lock at the first and second ends of each of the first and second tilt arms" as an element at each end of each tilt arm which securely locks the container to that end of the tilt arm in the tilting process.
94. The Defendant submits that in the Defendant's apparatus, the container is held in position in the tilting process between the pins or spigots on the rear gate and the pins or spigots on the members which wrap around the front end of the container; that these are not locks; and they are not at the end of each tilt arm.
95. In relation to the longitudinal pins inserted into the sides of the container through holes in the rear gate, the Defendant submits they are (i) also not locks; (ii) not gripping the container but merely holding it into position; (iii) holding it into position only when engaging the container with the apparatus and not during the tilting operation. Accordingly, it submits, that takes the rear engagement outside the literal construction of Claim 1 of the Parent Patent.
96. I do not accept the Defendant's submissions in relation to the rear engagement. Mr Lister agreed in cross-examination that the longitudinal pins are barrel bolts which I am satisfied are locks; they are located at the end of the tilt arms; they are retracted when the container is being loaded into the apparatus, and when the container is in position and located/aligned by use of the end spigots, they are then moved into and engaged with the side aperture and turned so they are locked into position. He also agreed that those bolts remained engaged during the tilting process: tilting up to the vertical for filling the container and tilting down again once it has been filled. Mr Lister said that he understood those to be there because once the container had been filled: *"When you then start to rotate to come back down at the front end, to lock that end of the container into the tilter, until you have actually locked it in, the container is at some risk of coming off the pin and that was perceived as a problem by, as I understand it... the Defendant, so they put these safety pins in to prevent that from happening.* Accordingly, I am satisfied they perform a securing function to engage the tilt arm to the side of the container.
97. I accept Mr Davis's submission that for this purpose, whether or not the rear spigots are locks or are merely a locating mechanism for the container is not relevant given my findings about the longitudinal pins. Since I have found the longitudinal pin is a "container lock being configured to engage an end of the tilt arm with a side wall of the container" I find that the rear engagement is within the literal construction of Claim 1 of the Parent Patent.

98. In relation to the front engagement, the Claimant accepts the Defendant's apparatus does not engage with the side wall of the container at the front end. This is outside the literal construction of Claim 1 of the Parent Patent which is why it does not advance infringement on a literal construction of Claim 1.

99. For that reason we turn to infringement by equivalence and the *Actavis* questions.

Question 1: Does the variant achieve substantially the same result in substantially the same way as the invention i.e. the inventive concept revealed by the Parent Patent?

100. It is common ground that the Defendant's apparatus achieves the same, or substantially the same, result as the invention. The question is whether it does so in a substantially different way because of the manner of the engagement of the Defendant's apparatus with the front (doors) end of the container.

101. The Defendant submits that it does indeed do so in a substantially different way, for the following reasons:

- i) in the Defendant's apparatus the container is gripped and carried by its end walls, not its side walls. I accept that, but I have found that engagement of the tilt arms with the side walls of the container is not part of the inventive concept;
- ii) this manner of gripping makes the apparatus safer to tilt. Mr Lister provided this opinion in his report. He said that the Defendant's design prevents the container from moving laterally during tilting because of the spigots at the front and the rear. However he also said that the longitudinal pins are necessary to ensure that the container is not pulled off the rear spigot pins as the mechanism which delivered the container to the apparatus is removed, so it seems to me that without the gripping provided by the longitudinal pins securing the tilt arms to the side walls to the rear, it would be safer in respect of lateral movement but less safe in relation to movement along the plane of the container. Any safety gains (which are in no way quantified by Mr Lister and so which I cannot find are substantial) are in part because of the substantially similar method of engaging the tilt arms with the side wall of the container by use of the longitudinal pins. Although repeated submissions were made that the pins were not there to support the weight when the tilter was in use, Mr Lister accepted in cross-examination that he could not say that they did not in fact support weight;
- iii) the method of gripping the container by the end walls exerts different forces: along the length of the container rather than transversely by the side walls. Mr Dekkers agreed the forces were different in cross-examination, which I accept. However the difference in forces arises from the different method of gripping the container. As I asked Mr Turner in his closing submissions – what difference does it make? His answer was that it makes it safer. So it is the same point I have dealt with in (ii) above;
- iv) the Defendant's apparatus is different from the invention because the rear gate of the Defendant's apparatus means that a container can only be delivered into it and out of it one way, whereas the invention allows delivery from either direction. This was not the subject of any evidence from any of the experts in their reports or in cross-examination, nor was notice of this difference given in

Mr Turner's skeleton, so I do not accept it. In any event, the Parent Patent specification does not specify that container delivery mechanisms must drive through the apparatus (i.e. in one side and out the other) and it teaches a preferred embodiment in [0056] and [0057] in which a truck backs a container into the apparatus and then drives out when the container is locked into the apparatus and released from the truck bed. Accordingly, it teaches an embodiment where a container is delivered into it and out of it one way;

- v) if the spigots on the front hydraulic arms are locks, they are not on the ends of the tilt arms. As I have identified, the Parent Patent teaches a number of differing potential arrangements of the tilt arms in different embodiments, including those which are hinged in two parts [0025]. It also teaches that the arm can be secured to the container via an intermediate structure in [0044]. Moreover as Mr Davis submits, Mr Lister does not support this as a substantial difference in his report.
- vi) the spigots on the front hydraulic arms of the Defendant's apparatus are not locks. Mr Lister calls these structures at the front "*hinge mounted spigots*" and explains at 3.7.2 of his report that they "*engage the front ends of the tilt arm with the front hole of the bottom corner casting*" and at 3.7.4 of his report that they are "*locked in place*" by hydraulic rams. Mr Lister accepted in cross-examination that both ends of the container in the Defendant's apparatus in use are locked.

102. Finally, Mr Turner submits that there is a difference in the way that the load is carried and how the resulting forces are exerted on the container. This is a submission which is based on Mr Lister's opinion in his report that the manner that the Defendant's apparatus secures the container produces longitudinal stresses on the container to keep it secure, not horizontal as does the method described in the Patents. This is the point which I noted in my discussion of the experts' evidence was based on an incorrect assumption made by Mr Lister about the Defendant's apparatus which he admitted in cross-examination he had not checked. He resiled from his conclusions at para 2.5.1 of his report as they were based upon this incorrect assumption and so there is no evidence to support this submission, in my judgment.
103. For those reasons I am satisfied that the Defendant's apparatus does achieve the same result in substantially the same way, and so the answer to the first *Actavis* question is 'Yes'.

Question 2 - Would it be obvious to the person skilled in the art reading the Parent Patent at the priority date but knowing that the variant achieves substantially the same result as the invention, that it does so in substantially the same way as the invention?

104. The Defendant does not argue otherwise, so the answer to the second *Actavis* question is 'Yes'

Question 3 - Would such a reader of the Parent Patent have concluded that the patentee nonetheless intended that strict compliance with the literal meaning of Claim 1 of the Parent Patent was an essential requirement of the invention?

105. The Defendant does not argue that strict compliance would be assumed by the skilled reader of the Parent Patent armed with the common general knowledge, so the answer to the third Actavis question is ‘No’.
106. Accordingly, I find that the Defendant’s apparatus infringes Claim 1 of the Parent Patent by equivalence.

Does the Defendant’s Apparatus infringe the Divisional?

107. The Claimant advances its case on a normal construction of Claim 1 of the Divisional.
108. Mr Dekkers has put in a claims chart in which he shows detailed concordance, and Mr Davis submits that he cannot see what the non-infringement points are.
109. The Defendant denies that its apparatus has the following features of Claim 1 of the Divisional:
- i) A front lock at the first end of each of the first and second tilt arms;
 - ii) A rear lock at the second end of each of the first and second tilt arms;
 - iii) If it has any such front locks, that they are configured to engage the second end of the first and second tilt arms with the rear wall of the container.
110. It does not pursue separately the pleaded denial that each tilt arm is directly pivotably connected to the base section at a pivot point between a front lock and a rear lock at the respective ends of the tilt arm.
111. In relation to (i) and (ii), the Defendant submits that in the Defendant’s apparatus, the container is mounted between pins on the rear gate and pins on members attached to the front ends of the tilt arms which (a) are not locks in the normal use of the word and (b) are not at the ends of the tilt arms.
112. Mr Dekkers’ evidence at 147 of his report is that the skilled person would understand the securing mechanisms on the Defendant’s apparatus to be locks at the end of the tilt arms. I have addressed these arguments in relation to the front engagement in my discussion of infringement of Claim 1 of the Parent Patent by equivalence. Mr Lister accepted in cross-examination that both ends are locked in use. The Claimant submits these are devices that lock, and that is all that is required. I do not accept the Defendant’s submissions on these points.
113. In relation to (iii), the Defendant submits that it is not the end of the tilt arm that is engaged with the walls of the container, rather it is (a) the rear gate which is engaged at the rear and (b) separate members attached to the front ends of the tilt arms which are engaged at the front.
114. In relation to the rear gate, the Defendant’s Reply to Part 18 questions makes clear that the rear gate is bolted onto to the rear ends of the tilt arms, linking them together. The Divisional teaches a preferred embodiment at [0029] in which “*each of the tilt arms may be linked together at their bottom or rear ends by a transverse cross member. This cross member may act to balance or synchronise the tilting action of*

both the tilt arms when operated". In my judgment, the rear gate is an extension of the rear ends of the tilt arms and it engages with the rear wall of the container.

115. Similarly, in relation to the front engagement, the Divisional teaches a number of embodiments with differing tilt arm arrangements and at [0027] states "*Those skilled in the art should appreciate that a range of tilt arm configurations are available for use with the present invention*".
116. Mr Dekkers' opinion at 148 of his report is that the skilled person would understand all the requirements of Claim 1 of the Divisional to be present in the Defendant's apparatus, and I agree. Accordingly I find that the Defendant's apparatus infringes Claim 1 of the Divisional.

K. INVALIDITY

Are the Patents invalid for obviousness over the prior art?

117. The question of whether, as pleaded, the Patents are invalid for obviousness over two pieces of prior art, being BE 1014698A6 ("Van Eeckhoutte") and DE 87 04 299U1 ("UKH") was barely addressed in the Defendant's skeleton, not addressed in the Defendant's oral submissions at trial, and appears to all intents and purposes to be abandoned.
118. If any vestiges are maintained, that appears to be in the teeth of the Defendant's own expert. As I have noted, Mr Lister identified in his cross-examination several differences in the Parent Patent over the common general knowledge, and in my judgment these fall within what he identifies in paragraph 3.5.5 of his report as being what the 'inventive step' "*may be*", and what I have found to be within the inventive concept of the Parent Patent. Accordingly, Mr Lister does not appear to support any argument the Defendant may maintain that the differences between the apparatus covered by Claim 1 of each of the Patents and the prior art were not inventive. I am satisfied that such an argument must fail.

Is the Divisional invalid for added matter ?

119. Mr Turner has helpfully traced through the relevant statutory and convention provisions in his skeleton argument, with which Mr Davis agrees and which I gratefully adopt:
 - i) EPC Art. 66 provides:

"A European patent application which has been accorded a date of filing shall, in the designated Contracting States, be equivalent to a regular national filing, where appropriate with the priority claimed for the European patent application."
 - ii) Regarding divisional applications, EPC Art. 76(1) provides:

"A European divisional application shall be filed directly with the European Patent Office in accordance with the Implementing Regulations. It may be filed only in respect of subject-matter which does not extend beyond the content of the earlier application as filed ..."

- iii) EPC Art 100 makes clear that divisional patents are liable to be revoked if they contain subject-matter extending beyond the content of the parent application as filed:

“Opposition may only be filed on the grounds that: ...

(c) the subject-matter of the European patent extends beyond the content of the application as filed, or, if the patent was granted on a divisional application ... beyond the content of the earlier application as filed”

- iv) A corresponding provision was contained in Art. 57 of the Community Patent Convention (1976):

“An application for revocation of a Community patent may be filed only on the grounds that: ...

(c) the subject-matter of the patent extends beyond the content of the European patent application as filed, or, if the patent was granted on a European divisional application ... beyond the content of the earlier application as filed”

- v) s.77(1) of the Patents Act provides:

“Subject to the provisions of this Act, a European patent (UK) shall, as from the publication of the mention of its grant in the European Patent Bulletin, be treated for the purposes of Parts I and III of this Act as if it were a patent under this Act granted in pursuance of an application made under this Act and - ...

(b) references in Parts I and III of this Act to a patent shall be construed accordingly ...”

- vi) s.15(9) of the Patents Act (in Part I) makes provision for divisional applications for UK patents.

- vii) s.72(1) of the Patents Act (in Part I) provides:

“Subject to the following provisions of this Act, the court ... may ... by order revoke a patent for an invention on the application of any person ... on (but only on) any of the following grounds, that is to say ...

(d) the matter disclosed in the specification of the patent extends beyond that disclosed in the application for the patent, as filed, or, if the patent was granted on a new application filed ... as mentioned in section 15(9) above, in the earlier application, as filed ...”

- viii) s. 76(1) of the Patents Act (in Part I) provides:

“An application for a patent which—

(a) is made in respect of matter disclosed in an earlier application ... and

(b) discloses additional matter, that is, matter extending beyond that disclosed in the earlier application, as filed, may be filed ... as mentioned in section

15(9) above, but shall not be allowed to proceed unless it is amended so as to exclude the additional matter”

ix) s.130(7) of the Patents Act states

“it is hereby declared that the following provisions of this Act, that is to say, sections ... 72(1) ... , are so framed as to have, as nearly as practicable, the same effects in the United Kingdom as the corresponding provisions of the European Patent Convention, the Community Patent Convention and the Patent Cooperation Treaty have in the territories to which those Conventions apply”

120. Although it could have been done more elegantly, the above provisions of the Patents Act are clearly intended and should be interpreted to have the same effect in the UK as the corresponding provisions of the EPC: *Vector v Glatt Air Techniques* [2007] EWCA Civ 805 at [3].

121. The test for added matter falls to be determined by reference to a comparison of the application for the patent as filed and the granted patent. As Aldous LJ said in *Bonzel v Intervention (No 3)* [1991] RPC 553 at [574] (which was described as helpful and having stood the test of time in *Vector Corp v Glatt*)

“The task of the Court is threefold:

- i) To ascertain through the eyes of the skilled addressee what is disclosed, explicitly and impliedly in the application.
- ii) To do the same in respect of the patent as granted.
- iii) To compare the two disclosures and decide whether any subject-matter relevant to the invention has been added whether by deletion or addition. The comparison is strict in the sense that subject matter will be added unless such matter is clearly and unambiguously disclosed in the application either explicitly or implicitly.”

122. Floyd LJ in *AP Racing Limited v Alcon Components Limited* [2014] EWCA Civ 40 said “In the end the question is the simple one posed by Jacob J (as he then was) in *Richardson-Vicks Inc’s Patent* [1995] RPC 568 at [576 (approved by him as Jacob LJ in *Vector Corp v Glatt*) at [4]):

“I think the test of added matter is whether a skilled man would, upon looking at the amended specification, learn anything about the invention which he could not have learned from the unamended specification”.

123. Floyd LJ noted that one of the reasons for the rule which Jacob LJ had identified in *Vector v Glatt* was that “*third parties should be able to look at the application and draw a conclusion as to the subject matter which is available for supporting a claimed monopoly. If subject matter is added subsequently the patentee could obtain a different monopoly to that which the application originally justified*”. In this case, if the Divisional as granted did not have the priority date of the Parent Patent application, then it would lack novelty by reason of the prior sales of D’s apparatus, since I have found D’s apparatus to infringe it.

124. In this case I am concerned about added matter in the Divisional over the Parent Patent, and it is common ground that the correct comparison for the Court to make in this case is between the Parent Patent application as originally filed and the Divisional as granted. I have been provided with a marked up comparison of the text including a comparison of the claims.
125. The Defendant pleads two points on added matter but does not pursue the pleaded point about the change from ‘container’ in the Parent Patent application to ‘freight container’ in the Divisional. The only pleaded point that remains is that references to side walls of the container in the Parent Patent application have been substituted by references to the front and rear walls of the container in paragraphs 22, 24, 41, 42, 43 and 44 of the description and claims 1 and 12 (as well as all the other dependent claims by reference) of the Divisional as granted.
126. The Claimant’s pleaded point that the Divisional is saved by incorporating the features of Claim 8 in Claim 1 is no longer advanced.
127. The question for me, then, when comparing those two disclosures, is whether the Parent Patent as filed discloses what the Divisional teaches, namely that the container can be secured to the tilt arms using the end apertures. If it does, it can now be claimed. If it does not, it is added matter and the Divisional is bad and should be revoked.
128. The Defendant submits that the feature of engagement of the tilt arms with the front and rear walls was not disclosed in the Parent Patent application. On the contrary, the parent application repeatedly specified engagement of the tilt arms with the side walls. It submits that this is a paradigm case illustrating why such added matter is not allowed, since the amendments seek to add to the patent an apparatus that the Claimant did not invent, but rather copied from the Defendant after the Defendant’s apparatus came on the market.
129. The Claimant submits that it does, for two reasons.
130. The Claimant’s first reason is that in the first paragraph of page 11 at line 1-6 (11/1-6) of the Parent Patent application a first preferred type of tilting apparatus is taught in which the locks engage with the container side walls, whereas in the next paragraph (11/ 7-13) a “*further preferred embodiment*” is taught, which states “*in a further preferred embodiment each tilt arm may be associated with or include a pair of container locks, being a front lock and a rear lock*”. It is only reasonable to assume this is something different from the paragraph above, and so cannot be re-teaching engagement of the container using the side aperture of the corner castings: it must only be referring to the end apertures.
131. I do not accept this submission which relies on selective quotation. The quote in the second paragraph continues: “*The front lock may engage with the front end of a container’s side wall adjacent to a door through which the container is loaded. Conversely, the rear container lock may engage with the opposite rear end of the container side walls*”. It is clear from this that the skilled addressee will understand the Parent Patent application to be teaching engagement of the container with the side walls.

132. The Claimant's second reason is that a form of securing using the end wall is explicitly taught at page 11/19 – page 12/1, which became [0045] of the Divisional. I have discussed the experts' evidence on this point at paragraph 38 above, which I accept. Both experts consider that this discloses a method for engaging the tilt arm with the side wall of the container, even though the pivoting hook engages with the front aperture of the corner casting. I am satisfied that the skilled addressee will understand the Parent Patent application to be teaching engagement of the tilt arms with the side walls of the container.
133. For those reasons I do not consider that the Parent Patent as filed discloses what the Divisional teaches, namely engagement of the tilt arms with the front and rear walls of the containers. Accordingly, the Divisional will be revoked for added matter over the Parent Patent as filed.

Are the Patents invalid for insufficiency?

134. Section 72(1)(c) of the Patents Act provides that a granted patent may be revoked if *“the specification of the patent does not disclose the invention clearly enough and completely enough for it to be performed by a person skilled in the art”*. Per *Anan Kasei v Neo* [2019] EWCA Civ 1646 at [21] – [27], [99]-104], a patent is invalid on this ground if a term used in the claims is uncertain so that it is not possible to determine what is within the claims and what is not. The burden is on the party who seeks revocation of the patent.
135. The Defendant attacks the patent on the ground of insufficiency in two ways: first, it pleads in the Amended Defence and Counterclaim at paragraph 33 that *“it is not possible for the skilled person to know what is meant by ‘freight’ or by ‘lock’”* in the Patents.
136. Mr Turner accepted in his skeleton that ‘freight’ as used in the phrase ‘freight container’ was sufficiently certain (as was Mr Lister’s evidence) and so abandons this attack.
137. I have already found when construing the claims that ‘lock’ is an ordinary English word, that the skilled addressee would understand what was meant by it, so the argument on this point must fail.
138. Second, the Defendant pleads in the Amended Defence and Counterclaim at paragraph 34 that *“The specification of the Divisional... does not disclose... how the locks on the tilt arms are configured to engage the tilt arms with the front and rear walls of the container as claimed in its Claims 1 and 12”*.
139. Mr Turner for the Defendant did not press this in his skeleton or in his oral submissions and it too seems to have been abandoned. This is also sensible, in my judgment: I accept the Claimant’s submissions that this is discussed throughout the specification and would give the skilled addressee no difficulty in addressing the disclosure; Mr Lister explained in oral evidence that locking mechanisms are well known; and specific arrangements having such a construction are discussed at [0045] and [0046].

L. ESTOPPEL

The Law

140. The parties in this case have given me notably little assistance on the law in this area. The Defendant relies on the principle to be applied from *Taylor's Fashions Ltd. v Liverpool Victoria Trustees Co. Ltd.* [1982] 1 QB 133 per Oliver J (as he then was) at 151H-152A. Following a detailed discussion of the authorities he said:

“Furthermore the more recent cases indicate, in my judgment, that the application of the *Ramsden v. Dyson*, L.R 1 H.L. 129 principle - whether you call it proprietary estoppel, estoppel by acquiescence or estoppel by encouragement is really immaterial - requires a very much broader approach which is directed rather at ascertaining whether, in particular individual circumstances, it would be unconscionable for a party to be permitted to deny that which, knowingly or unknowingly, he has allowed or encouraged another to assume to his detriment than to inquiring whether the circumstances can be fitted within the confines of some preconceived formula serving as a universal yardstick for every form of unconscionable behaviour”.

141. The Defendant, relying on *Taylor's Fashions*, declines to categorise either the claim as one of proprietary estoppel or estoppel by acquiescence but it appears from Mr Turner's submissions on the Reply (which I will return to) that it does not seek to argue estoppel by encouragement. I note for convenience that the Defendant neither pleaded nor argued laches, despite its submissions about the unconscionability of the Claimant's delay in bringing these proceedings.

142. Mr Davis relies on Chapter 12 of *Snell on Equity* (34th Ed.) in which the authors provide a learned exposition of the law and authorities in this difficult equitable jurisdiction. It was not one of the authorities provided to the Court. He relies on the helpful introduction to estoppel to be found at para. 12-038:

“12-038 It has been stated that the elements of proprietary estoppel “cannot be treated as subdivided into three or four watertight compartments” and that the courts' task is to “look at the matter in the round”. Nonetheless, in every case, the court's analysis will benefit if the particular questions that may arise in a proprietary estoppel claim are approached in a systematic way. This can be done by considering in turn each of “the three main elements” of proprietary estoppel: “... a representation or assurance made to the claimant; reliance on it by the claimant; and detriment to the claimant in consequence of his (reasonable) reliance”. [These principles come from the authority of *Gillett v Holt* [2001] Ch. 2010 CA at [255] per Robert Walker LJ]. It should be kept in mind that, as discussed at para.12-033, it will be necessary to distinguish between the three different strands of proprietary estoppel when considering each of those requirements.”

143. The three strands discussed at para. 12-033 referred to in that extract are acquiescence, representation and promise-based strands of promissory estoppel. A footnote to that paragraph notes that :

“In *Hoyle Group Ltd v Cromer Town Council* [2015] EWCA Civ 782, Floyd LJ stated at [72] that: “A proprietary estoppel does not have to fit neatly into the pure acquiescence-based pigeon hole or the assurance one” and also endorsed the broad approach to proprietary estoppel adopted by Oliver J in *Taylor's Fashions* ...; but

this may simply reflect that, in the *Hoyle Group* case, the relevant conduct of A consisted both of failing to provide information to B and requesting that B complete particular work.”

144. Mr Davis also relies on para. 12-039 relating to the representation or assurance element, part of which I set out below with my own emphases:

12-039(a) **Representation or assurance made to B.** The first point to make is that, if B wishes to invoke the acquiescence-based strand of proprietary estoppel, there is no need to prove any express or, it is submitted, implied representation or assurance by A: the relevant conduct of A consists simply of A’s failure to disabuse B of a mistaken belief:

“[I]f all proprietary estoppel cases (including cases of acquiescence or standing-by) are to be analysed in terms of assurance, reliance and detriment, then the landowner’s conduct in standing by in silence serves as the element of assurance.” [*Thorner v Major* [2009] UKHL 18, [2009] 1 W.L.R 776 at [29] per Lord Walker]

In many acquiescence cases any finding of an implied assurance would be wholly fictional as there is no requirement of any communication between A and B [from, inter alia, *Ramsden v Dyson*, see also J Mee, “Proprietary Estoppel, Promises and Mistaken Belief” in S. Bright (ed), *Modern Studies in Property Law* (Oxford: Hart Publishing, 2011), Vol. 6, pp.175, 182.]. **The hurdles faced by B in an acquiescence case instead come from the need for B to show that he or she acted in a mistaken belief as to his or her current rights, and also to show that A failed to assert A’s right even though A knew both of B’s belief and of the true position.**

If B instead wishes to invoke the representation-based strand of proprietary estoppel, then a representation by A as to a matter of fact, or mixed fact and law is, of course, required [*Cobbe v Yeoman’s Row Management Ltd* [2008] UKHL 55; [2008] 1 W.L.R. 1752 at [14]]. B must also have reasonably believed that the representation was true and that A intended B to adopt a particular course of conduct in reliance on it [*Sidney Bolsom Investment Trust Ltd v E Karmios & Co (London) Ltd* [1956] 1 Q.B.529 at [541] per Denning LJ]. As the relevant principle is the same as applying to estoppel by representation, that strand cannot however assist B in a case where B instead relies only on a belief as to A’s future conduct. It is submitted here that, in a case where B has acted in reliance only on a belief as to A’s future conduct (and so not on a belief as to B’s current rights or on a belief as to a matter of fact or mixed fact or law represented by A to be true) then a proprietary estoppel can arise only if B acted in reliance on a promise made by A to B. This need for a promise can be seen in *Thorner v Major*, where B continued to work on A’s farm for long hours, and low pay, in the belief that A would leave that farm to B on A’s death. In each of the three courts where it was considered, B’s claim was seen as depending on the finding of an express or implied promise (or, synonymously, an assurance or commitment) by A...”

145. I also consider that in para. 12.043, the authors of Snell provide useful assistance on reliance, although I was not taken to this paragraph (or any authorities on the point) by either Counsel.

146. Here, the authors describe reliance as an “*essential element*” of B’s claim of proprietary estoppel, “*as it forms a link between A’s acquiescence, representation or promise and the detriment that B claims he or she will suffer if A is wholly free to insist on A’s rights. That detriment is relevant only if it results from a course of conduct undertaken in reliance on A’s acquiescence, representation or promise*”. They go on to distinguish the tests for reliance which apply for the three different strands of proprietary estoppel. They note that in *Fisher v Brooker* [2009] UKHL 41, [2009] 1 W.L.R 1764, the acquiescence principle did not apply as the defendants, who attempted to invoke it, “*had simply not established that they or their predecessors would have acted differently if the claimant had raised his claim earlier*”. They further note that in *Taylor’s Fashions*, relied upon by the Defendant in this case, it was held that “*Taylor’s could establish no estoppel as it seemed likely that it would have acted in the same way even if it had not mistakenly believed that its option to renew its lease was binding on A*”. At the third paragraph of 12-043 the authors of Snell suggest that “*The question is as to how B would have acted if A had in fact corrected B’s mistaken belief by alerting B to A’s right. It is important to note that the relevant reliance is on B’s mistaken belief rather than on A as such, as A may have played no active part in the creation of B’s belief*”.

The parties’ cases

147. The Defendant’s case as pleaded is:

- i) That the Claimant, by not replying to the Defendant’s 20 May 2011 Letter responding to the letter of claim, allowed and encouraged the Defendant mistakenly to believe that the Claimant accepted that the Defendant’s apparatus did not infringe [presumably, although it is not pleaded, the Parent Patent, as the Divisional did not at this time exist];
- ii) Relying on this, the Defendant invested in building up its business in sales of the Defendant’s apparatus [for a further almost 8 years, and for 6 years after the grant of the Divisional];
- iii) Accordingly, it would be unconscionable for the Claimant to deny that the manufacture and sale of the Defendant’s apparatus is lawful and does not infringe the Patents; and
- iv) In these circumstances the Claimant is estopped from asserting that the Defendant’s apparatus does infringe the Patents.

148. Mr Hughes’ witness statement at [11] sets out his evidence that when no reply was received from the Claimant “*the Defendant therefore believed the Claimant had accepted that the Defendant’s container tilting machines were non-infringing*”.

149. Mr Turner sought to widen this in his closing submissions to say that by not replying to the 20 May 2011 Letter, the Claimant had allowed the Defendant to assume (i) that the Defendant’s apparatus did not infringe; and (ii) that the Claimant accepted that it does not infringe; but the former is not supported by Mr Hughes’ evidence or the pleading (which stands as evidence) so I will hold the Defendant to its pleaded case.

150. In the Reply and Defence to counterclaim, the Claimant pleaded that there were inadequacies in the Defendant's pleaded case: that it did not plead any representation made by the Claimant to the Defendant nor any act of encouragement upon which an estoppel could be founded.
151. The Defendant submits that the points made by the Claimant in the Reply are wrong in law because:
- i) An affirmative representation is not required. Per Oliver J (as he then was) in *Taylor's Fashions Ltd. v Liverpool Victoria Trustees Co. Ltd.* [1982] 1 QB 133 at 151H-152A, the defence can be maintained if it is unconscionable for the claimant to deny something which it has allowed the defendant to assume to its detriment, and the Claimant allowed the Defendant to assume something to its detriment by not replying to the 20 May 2011 Letter; and
 - ii) An act of encouragement is not required, as the estoppel can be by acquiescence **or** encouragement and can arise where the Claimant has allowed **or** encouraged the defendant to assume to its detriment that which the claimant now seeks to deny.
152. I accept the second point is true as a matter of law.
153. In relation to the first point, I accept Mr Davis's submission that as a matter of law a promise-based estoppel or estoppel by representation does require a positive representation by the Claimant, but an estoppel by acquiescence does not. This is identified in para. 12-039 of Snell set out above. The Defendant has not pleaded or put forward any positive assurance, representation or promise and so its case must only be one in pure acquiescence.
154. I also accept Mr Davis' submission that as a matter of law, although estoppel by acquiescence (unlike the other strands of proprietary estoppel) can be founded on mere silence from the right owner, the Claimant's relevant conduct must consist of its failure to disabuse the Defendant of a mistaken belief. That requires the Claimant to know about it. The burden is therefore on the Defendant to show:
- i) that it acted in a mistaken belief as to its rights; and
 - ii) that the Claimant failed to assert its rights even though the Claimant knew both of the Defendant's belief and the true position.
155. Mr Davis submits that the pleaded assumption by the Defendant that the Claimant accepted it did not infringe, is not a mistaken belief. He argues that the Claimant cannot have accepted following receipt of the 20 May 2011 Letter that the Defendant's apparatus did not infringe the Patents: at most, the Claimant can only have accepted that the Defendant had a defence to infringement, and that is not a mistaken belief because it is true. The Defendant does have a defence to infringement, and that is a defence which has been run before this Court.
156. I am not with Mr Davis on this point. He is focussing on the reality of the situation and not the Defendant's belief. Mr Hughes' unchallenged evidence is that because of the Claimant's failure to reply, the Defendant believed the Claimant had accepted

that the Defendant's apparatus was non-infringing. That was a belief, and that was mistaken.

157. However, the Defendant is not able to satisfy the court that the Claimant knew of this mistaken belief. It has put no evidence of this before the Court, although I appreciate that such evidence would not be easy to obtain. I have looked carefully at my notes of Mr Turner's submissions, and I cannot see that he has asked this Court to infer that the Claimant knew of that mistaken belief, and it is difficult to see on what basis the Court could make such an inference. That is particularly so in these circumstances, where the Defendant did take advice on infringement before writing the 20 May 2011 Letter. It seems a reasonable assumption that such advice included that until the infringement allegation was resolved, the Defendant should only proceed with the Defendant's apparatus business at its own risk. Mr Turner submits that it was for the Claimant to respond to the Defendant in those terms, and if it had done so it would not be estopped, presumably because there would then be no mistaken belief at all. It also does not answer the point about whether, given the Defendant did have such a mistaken belief, the Claimant knew about it. I am not satisfied that it did for the reasons I have given.
158. After providing this judgment to the parties in draft, Mr Turner in his skeleton for the handing down and consequential hearing submits that there is a proper inference which the Court should draw from Defendant's letter that "*if we have not heard from you within fourteen (14) days... we shall consider the matter to be closed*", as this plainly put the Claimant on notice that if the Defendant did not hear from it within that time, it would assume that the Claimant accepted that its product did not infringe. Although this was not a submission made to me at trial, I will deal with it now and I am grateful to him for the opportunity to do so. That is an inference which could be drawn but I decline to draw it in the circumstances as I have set out. I do not consider that it is for the Claimant to provide the legally advised Defendant with advice on potential risk. As Mr Turner accepted, it was obvious on the fact of the Claimant's letter that it had been drafted with the benefit of legal advice and I think it is more likely that the Claimant would have understood that if it did not reply, the Defendant would make its own decision about the risks of proceeding in the face of an unresolved accusation of patent infringement rather than the Defendant would have accepted the Claimant's silence as an acknowledgement of non-infringement.
159. Mr Turner submits that the Defendant's claim in estoppel is founded on the unconscionability of allowing the Claimant to proceed with the infringement claim after years of silence, during which, "*with an increasing feeling of security, perhaps*", the Defendant builds up its business. However, the House of Lords in *Cobbe v Yeoman's Row* is clear authority that unconscionable conduct, although necessary to prompt the Court to provide an equitable remedy, is not sufficient. Per Lord Scott at [16] in that case: "*unconscionability of conduct may well lead to a remedy but, in my opinion, proprietary estoppel cannot be the route to it unless the ingredients for a proprietary estoppel are present*". To the extent that *Taylor's* suggests otherwise, *Cobbe v Yeoman's Row* provides higher and more recent authority.
160. The ingredients for an estoppel are the relevant conduct relied on, reliance, and detriment. Since the Defendant cannot satisfy me of the relevant conduct necessary to found an estoppel by acquiescence, or a representation or promise to found the other

strands of promissory estoppel, I accept the Claimant's submission that it falls at the first hurdle. In case there is any doubt about that, I will deal shortly with reliance.

161. I have set out the Defendant's evidence on reliance, which was not challenged by cross-examination. Mr Turner accepts that it is not unequivocal evidence of reliance, as Mr Hughes says that it is difficult to say what the Defendant would have done if the Claimant had continued its infringement claim in respect of the Parent Patent in 2011 or if it had come back in 2013 after the Divisional was granted. However, he submits that although this is not "100% reliance", it is "*sufficient reliance to bring into play the principle*". Mr Davis submits it is not and I accept that submission. As was the case in *Fisher v Brooker*, the Defendant has not established that on the balance of probabilities it would have acted differently if it had not had the mistaken belief, or if the Claimant had disabused the Defendant of its mistaken belief. Accordingly the Defendant falls, again, at the second hurdle, and I do not think there is any purpose in going on to consider detriment and unconscionability.
162. For those reasons I decline to find that the Claimant is estopped from obtaining relief for any infringement on the basis of acquiescence.

M. SUMMARY

163. The Defendant's apparatus infringes Claim 1 of the Parent Patent by equivalence. The Parent Patent is valid.
164. The Defendant's apparatus infringes Claim 1 of the Divisional on normal construction, but the Divisional is invalid for added matter over the Parent Patent and will be revoked.
165. The Claimant is not estopped from obtaining relief for infringement on the basis of acquiescence.