HIGH COURT OF SOUTH AFRICA

(GAUTENG DIVISION, PRETORIA)

Not reportable

Not of interest to other Judges

CASE NO: 5826/2002

14/12/17

SANDVIK INTELLECTUAL PROPERTY AB Applicant

and

OUTOKUMPU OYJ First Respondent

OUTOTEC OYJ Second Respondent

Summary: Patent revocation - patent concerning a conveyor belt for use in a thermal treatment- whether patent lacks clarity- novelty- inventive step.

ORDER

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1. The application for revocation of the South African patent number 2002/5826 is dismissed with costs;

2. Each of the claims of the South African patent number 2002/5826 are certified as being valid in terms of section 74 of the Patent Act 57 of 1978.

JUDGMENT

MAKGOKA, J

[1] This is an application for the revocation of the South African Patent number 2002/5826 (the patent).[1] The applicant, Sandvik Intellectual Property AB, is a Swedish corporation. The patent concerns a conveyor belt for use in a thermal treatment. The technical field of the invention relates to a continuously operated, conveyor type belt for the thermal treatment of a material bed on the belt. The belt is made of interconnected elements provided with perforations for conducting heating and possibly cooling gases to be fed through the material bed and simultaneously through the belt.

[2] The patent has one independent claim (claim 1) and nine independent claims. The last is a so-called 'omnibus claim'. Claim 1 can conveniently be broken down into integers A-F, as follows:

(A) a conveyor belt for a continuously operated conveyor-type thermal treatment, i.e sintering, of a material bed;

(B) said conveyor belt being provided with perforations in order to allow the gases (sic) that are used for heating and possibly cooling the material bed to flow through the material bed and the conveyor belt;

(C) and said conveyor being based on elements connected to each other;

[1] The patent was initially granted to the first respondents, but subsequently assigned to the second respondents.

(D) characterized in that the conveyor belt is made of a perforated, at least one-part element made of a mental piece and allowing the gas to flow through;

(E) and that the perforations are arranged in zones alternating with perforation-free element parts;

(F) and that the area of the perforations is about 20-60% of the total area of the conveyor belt.

[3] It is claimed in the patent specification that the disadvantage of the prior art is that the belts in the prior art have slots in the centre of the belt in adjacent, spaced apart rows. It is said that these rows are made of elongate slots transverse to the proceeding direction of the conveyor belt. It is then contended that when those belts wear off, they must be replaced in their entirety; and such replacement is both time-consuming and costly. Accordingly, it is claimed that the object of the invention is to eliminate the disadvantages of the prior art and to achieve a continuously operated conveyor-type belt that is economical to manufacture and that can be replaced in parts.

[4] The applicant seeks revocation of the patent on three grounds, namely lack of clarity, lack of novelty and lack of inventive step. Before I consider each of the grounds, I set out the general approach to patent interpretation. The first task of the court is to ascertain the nature of the invention as claimed and its precise scope by construing the specification and claims. See *Gentiruco AG V Firestone (SA)*

(Pty) Ltd 1972 (1) SA 589 (A) at 614A-616D, where the rules of construction were formulated, which were restated in *Monsato Co v MDB Animal Health (Pty) Ltd (formerly MD Biologics CC* 2001 (2) SA 887 (SCA) paras 8 and 9 as follows:

(a) A specification should be construed like any other document, subject to the interpreter being mindful of the objects of a specification and its several parts;

(b) The rule of interpretation is to ascertain, not what the inventor or patentee may have had in mind, but what the language used in the specification means, i.e what the intention was as conveyed by the specification, properly construed;

(c) To ascertain that meaning the words used must be read grammatically and in their ordinary sense;

(d) Technical words of the art or science involved in the invention must also be given their ordinary meaning, i.e as they are ordinarily understood in the particular art of science;

(e) If it appears that a word or expression is used, not in its ordinary sense, but with some special connotation, it must be given that meaning since the specification may occasionally define a particular word or expression with

the intention that it should bear that meaning in its body or claims, thereby providing its own dictionary for its interpretation;

(f) If a word or expression is susceptible of some flexibility in its ordinary connotation, it should be interpreted so as to conform with and not to be inconsistent with or repugnant to the rest of the specification as a whole that certain words or expressions in the claims are affected or defined by what is said in the body of the specification, the language of the claims must then be construed accordingly.

[5] In recent years, there has been a shift away from literalism towards contexualism. See for example *Aktiebolaget Hassle and another v Triomed (Pty) Limited* 2003 (1) SA 155 (SCA) para 8, where Nugent JA undertook a useful review of the South African decisions (and the adoption of the approach in *Catnic Components Ltd and Another v Hill and Smith Ltd* [1982] RPC 183 (HL) at 242). In *Vari-Deals 101 (Pty) Ltd v Sunsmart Products (Pty) Ltd* 2008 (3) SA 447 (SCA) the approach was set out as follows:

'...(W)hat is sought by a purposive construction is to establish what were intended to be the essential elements, or the essence, of the invention, which is not to be found by viewing each word in isolation but rather by viewing them in the context of the invention as a whole....it is of course true that *Catnic* did not change the law relating to construction, but it certainly restricted the scope for contesting litigants to indulge in meticulous verbal analysis' of specifications and claims - usually to an extent which would have been inconceivable to the

ordinary skilled addressee reading the patent to ascertain the invention and the ambit of protection claimed. It also relieved the courts of the metaphorical 'straitjacket' of having to arrive at any interpretation of claims without having free recourse (subject to the well-established limits) to the specification in order to decide what the skilled addressee would have understood those claims to mean.'

[6] The question as to whether the defendant is infringing the asserted claims of the plaintiff's patent, involves a comparison between the alleged infringing product and the actual words of the asserted claims.[2] It is only an infringement if each of the essential integers of a particular claim is present in the alleged infringing product. The claim is to be purposively interpreted by a mind willing to understand and 'not with an attitude of studied obtuseness'.[3] The court must, in other words, be placed in the position of the notional 'addressee' of the patent in issue. This person has been judicially defined as the 'typical representative' or 'ordinary skilled or qualified persons in the art'.[4]

[7] As stated already the applicant attacks the validity of the patent on the the grounds of lack of clarity, lack of novelty and lack of inventiveness. I consider these in turn. Section 61(1)(f)(i) of the Act provides that a patent may be revoked

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[2] *Stauffer Chemical Co, and Another v Sasfan Marketing & Distribution Co. (Pty) Ltd and Others* 1987 (2) SA 331 (A) at 342D-E and 347(I).
[3] *Roman Roller CC and Another v Speedmark Holdings (Pty) Ltd* 1996 (1) SA 405 (A) at 419D-E.
[4] *BM Group (Pty) Ltd v Beecham Group Limited* 1980 (4) SA 536 (A) at 553E-F.

if the claims of the complete specification concerned are not clear. The applicant alleges that claim 1 of the patent lacks the requisite clarity and that the claim is consequently invalid and liable to be revoked. In this regard it was argued that while integer B does claim or belt with 'perforations' there is no antecedent in any of the integers of claim 1, or even in any of the subsequent dependent claims, for 'perforation free element parts,' particularly where the 'elements' claimed in integer C are characterized in integer D as being 'perforated' and made of 'a metal piece.' According to the applicant, a conveyor belt comprising 'one element made of a metal piece' as claimed in integer D is inconceivable because:

(a) it is not a continuously operated conveyor belt;

(b) a one-element belt can also not comprise elements connected to each other as required in integer C;

(c) a one-element belt can also not comprise perforated and perforation free elements (as claimed in integer E) connected to each other (as claimed in integer C.

(d) it would also defeat the object of providing a belt of which worn parts, as opposed to the entire belt itself, could easily be replaced (as stated to be one of the advantages of the invention).

[11] On behalf of the respondents, it was explained that the conveyor belt of claim 1 must be made of a 'perforated, at least one-part element made of a metal piece' (integer D), and that the function of the perforation is to allow gas to flow through the elements. I do not agree with the submission advanced on behalf of the applicant that that the meaning of 'at least one-part element made of a metal piece' is unclear. It is explained in the patent that an element can be one-part or multi-part. A one-part element is one which is formed of a single piece of metal which extends across the entire width of the conveyor or belt. On the other hand, a multi-part element is one which has a number of pieces of metal making up the width of the conveyor belt, which pieces are joined together 'lengthwise in the proceeding direction of the conveyor belt' in other words, along a line or lines parallel to the direction of travel of the conveyor.

[12] Counsel for the respondents contended that by claiming 'at least one part element' the patentee made clear that claim 1 includes within its scope conveyor belts which have a one-part element or an element which had 'multi-parts' across the width of the conveyor belt. I agree. This submission is supported by claims 2 and 3, which claim these different types of elements separately, and both are dependent on, thus fall within the scope of, claim 1.

[13] The patent specification further explains that even where a one-part element is employed, several elements can be interconnected transversally to the

proceeding direction of the conveyor belt. The conveyor belt may therefore comprise several elements interconnected to each other along a line which is perpendicular to the direct of travel. This is referred to in integer C.

[14] Integer E of claim 1 provides that the perforations identified in integer D are arranged in zones alternating with perforation-free element parts. Counsel for the respondents, correctly in my view, explained that the 'perforation-free element parts" refer to parts of the element of integer C which have no perforations in them. Counsel further submitted that the 'parts' referred to in this context are not synonymous with the 'at least one part' element of integer D. This submission is to my mind, correct, when one considers the fact that integer D refers to 'a part' (singular) whereas integer E refers to 'parts' (plural).

[15] Thus viewed in this light, integer D postulates that the element (whether to be a one-part element or a multi-part element) must have alternating (i) perforation-containing zones; and (ii) perforation-free parts arranged on it. This is supported by figures 1 to 3 of the patent, all of which illustrate the same characteristic. Given all the above considerations, I conclude that there is no merit in the contention by the applicant that the invention lacks clarity. Counsel for the respondents characterized the argument on behalf of the applicant as 'unnecessarily complex' and one of 'studied obtuseness.' I agree.

[16] I turn now to consider the attack based on lack of novelty. Destruction of novelty by anticipation was explained by the Appellate Division in *Veasy v Denver Rock Drill and Machinery Co Ltd* 1930 AD 243 at 282:

'Anticipation destroys the claim to novelty, but the prior publication (or public user) relied upon as anticipation must be of the identical - or substantially identical - invention claimed. Essence, of course, and not form is what is looked to: essential resemblance may be hidden, and comparison between the two may be difficult in particular cases. But difficulty in application does not destroy the clearness of the principle to be applied. The invention claimed is not new if there has been prior publication of it. But novelty is not destroyed by prior publication of an invention closely resembling that of the patent challenged if the difference between the two, however small, is a real difference. In a defence raising want of novelty the evidence in support of it is directed to establish the identical nature of the prior invention and its prior publication.'

[17] In *Gentiruco* the legal principles applicable to anticipation were comprehensively set out, and may be summarized as follows:

(a) In regard to a prior publication the ordinary meaning of 'describe' means 'to set forth in words or recite the characteristics of'. Hence, for it to 'describe' the invention as claimed, the prior document must set forth or recite its essential integers in such a way that the same or substantially the same process is identifiable or perceptible and hence made known, or the same or substantially the same thing can be made, from that description. 'Substantially

the same' means 'practically the same', the same 'for the purposes of practical utility'; i.e. substance and not form must be regarded (646E-G);

(b) If on a comparison of the two documents it appears that the same or substantially the same process, etc., is described in the above sense in both, the claim has been anticipated and is not novel; conversely, if the description in the prior document differs, even in a small respect, provided it is a real difference, such as the non-recital of a single essential integer, the objection of anticipation fails (646G-H);

(c) An allegedly anticipatory document is to be construed at the date of its publication 'to the exclusion of information subsequently discovered' (646H);

(d) Extrinsic evidence is admissible to prove the meaning of technical terms or the state of the art at that date insofar as it is relevant for the proper construction and application of the documents (647A);

(e) The opinions of expert witnesses that a document does or does not anticipate a claim of the patent concerned must be disregarded, for that is for the court to decide (646H); and

(f) For the purpose of the objection of anticipation the claim concerned is assumed to be inventive (646C-D).

See also *Netlon Ltd and Another v Pacnet (Pty) Ltd* 1977 (3) SA 840 at 861H-862B.

[18] The applicant originally relied on three citations that allegedly formed part of the prior art immediately before the priority date of 31 January 2000: DE 2742100 Al (Polysius) a German patent, and two American inventions, US 3735858 A (Hartwig) and US 4316718 A (Drugge). However, in its replying affidavit, the applicant expressly disavowed reliance upon Drugge as a novelty citation.

[19] However, counsel for the applicant, in his oral submissions, sought to rely this prior art. I pointed out to counsel that reliance on the prior art had been abandoned. Counsel had apparently missed this aspect in his preparation. Nevertheless, he sought to persuade me that appeared in the replying affidavit did not correctly convey what was intended, and that it was still the applicant's intent to rely on Drugge. With opposition from the respondents's counsel, I ruled that the respondents was bound by the admission and was prohibited from reliance on Drugge. As a result, I ignore any reference to that prior art in considering whether the invention is new. In addition, during oral submissions, counsel only relied on Hartwig, thus abandoning Polysius as an effective anticipation.

[20] It was submitted on behalf of the applicant that even if claim 1 is constructed so as simply to mean multi conveyor element parts, each part having perforated zones alternated by perforation-free zones, and that such parts are connected to each other laterally, then the belt of the invention is not new, as

individually, as Hartwig describes multiple conveyor elements connected to each other along a lateral direction, and with perforated zones alternated with free zones.

[21] The only relevant integers for the applicant's novelty attack are integers E and F. With regard to integer E, it was also argued that Hartwig describes interspaced perforations located on a 'substantial part of the length of the main body portion' and the advantages of that configuration. The perforations described there are sufficiently narrow to permit a substantially unrestricted passage of hot gases to the load material whilst also preventing any significant spillage of the load material through the belt. On these considerations it was submitted that the conveyor belt of claim 1 does not differ in any material respect from that in Hartwig, and therefore not new.

[22] When one has regard to figure 1 of Hartwig, it depicts a series of two elements connected to each other. Each of the elements is a multi-part element in that it has five parts joined together, and each element has a continuous series of perforations. Those perforations extend lengthwise in the direction of travel of the conveyor belt. The perforations in Hartwig therefore extend across the entire width of the element, leaving no room for a non-perforated part of the element.

[23] It is therefore plain that there is no disclosure of a one-part or a multi-part element having alternating perforation-containing zones and perforation-free

parts of an element making up a conveyor belt. Counsel for the respondents correctly pointed out that a skilled person reading Hartwig would not know how to incorporate alternating perforation-containing zones and perforation-free parts on a single element of a conveyor belt. For that reason I agree that there is no enablement of integer E in Hartwig.

[24] With regard to integer F, on page 3 of the specification the following is explained:

'The number of the perforations provided in the conveyor belt element according to the invention is such that as regards the area of the element consisting of one or several pieces; the total area of the perforations is 20 – 60%, advantageously 35 – 40%. Moreover, said perforations are arranged in groups in the lateral direction of the conveyor belt, so that at both edges of the conveyor belt, there is provided a perforation-free zone having the width of 20-25% of the total width of the conveyor belt. In addition, the perforations provided in the middle section of the conveyor belt, in between the two perforation-free edge zones, are positioned so that in between two perforated zones, there is provided a perforation-free zone having a width that is equal to the width of the perforated zones. In the perforated zone, the perforations are placed in one or several rows in the lateral direction of the conveyor belt.'

[25] Counsel for the applicant submitted that range claimed is apparently an arbitrary selection as the claimed advantage, preference or importance in the functioning of the belt and its effect on the way the invention works over the perforated belts of the prior art, is nowhere disclosed in the patent specification. It was accordingly argued that integer F of claim 1 is not an essential integer and

therefore can be ignored in assessing the novelty of the claim. This is so, continued counsel, because any belt for sintering must perforce have an area of perforations and that area would have to comprise a percentage of the total area of the belt.

[26] In this regard, counsel for the respondents argued that the words used in integer F of claim 1 cannot simply be ignored. He referred to *Kirin-Amgen*,[5] where it was explained that the language the patentee has chosen is usually of critical importance. Furthermore, the words will usually have been chosen upon skilled advice. After pointing out that the specification is a technical document and not within the easy grasp of unskilled people, Hoffman remarked that it would not happen often that a patentee would include in his description of the invention some element which he did not mean to be essential. Viewed in this light, it must be assumed that the words included by the patentee in integer F of claim 1 are there for a purpose, and cannot just be ignored. A strong case, supported by the evidence of a skilled person, would have to be made out as to why he or she would simply ignore those words. There is no basis for such an argument in this case.

[27] The patent specification makes it clear that the specific total area occupied by the perforations is an important aspect of the invention. To achieve one of the primary advantages of the invention, the patent teaches that it is the combination

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[5] *Kirin-Amgen Inc. & Others v Hoescht Marion Roussel & others* [2005] 1 All ER 667 para 34.

of (i) the specific area occupied by the perforations; and (ii) the alternating perforation-containing zones and perforation-free parts of the element that together allow the conveyor belt.

[28] Counsel for the respondents also pointed out, correctly, in my view, that in the prior art, the perforation zones clearly occupy more than 60% of the area of the belt; and do not alternate with perforation-free parts of the element. The patent, however, teaches the skilled person to provide perforation-free parts at the edges of the conveyor belt; and to alternate perforation-containing zones with perforation-free parts of equal width across the whole width of the element. I agree with this submission because the provisions of these perforation-free parts of the element would not be achievable if the perforations occupied more than 60% of the area of the belt.

[29] On the other hand, the belt would be ineffective in transferring heat to the material being sintered if the perforations occupied less than 20% of the area of the belt. A skilled person reading the specification would thus recognise that the limitation to a specific area occupied by the perforations in claim 1 is a critical and limiting feature of the invention, and not an arbitrary selection as contended for on behalf of the applicant. Obviously, such an important feature cannot just be ignored.

[30] In the ultimate end, as counsel for the respondents submitted, the invention of the patent balances the requirements of (i) effective heat transfer through the belt (which occurs primarily in the central region of the belt); and (ii) limiting thermal and tensile stresses on the belt. Hartwig discloses integers E or F of claim 1. In the result I conclude that the attack based on novelty should fail.

[31] Lastly, I consider the attack based on obviousness, which arises only if the invention has survived the attack on novelty. A patent may be revoked in terms of section 61(1) of the Act on the ground that it is not patentable under section 25. In terms of section 25(1), to be patentable the invention must be one 'which involves an inventive step'. Section 25(10) of the Act provides that:

'Subject to the provisions of section 39(6), an invention shall be deemed to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms, immediately before the priority date of the invention, part of the state of the art by virtue only of sub-section (6) (and disregarding sub-sections (7) and (8)).'

[32] The general approach on the issue of obviousness was restated by the Supreme Court of Appeal in *Ensign-Bickford (South Africa) (Pty) Ltd and Others v AECI Explosives & Chemicals Ltd* 1999 (1) SA 70 (SCA) 79I – 80J:

'As is pointed out in *Roman Roller CC and Anther v Speedmark Holdings (Pty) Ltd* 1996 (1) SA 405 (A) at 413, in order to apply these provisions (of the Act) to a particular case it is necessary to determine what the art or science to which the patent relates is, who the person skilled in the art is and what the state of the art at the relevant date was. But the inquiry, in my

view, must then proceed further. After those factors have been determined, a more structured inquiry must be undertaken. For this, it is appropriate to adopt tests formulated in certain English authorities. The tests proposed do not differ from some of the inquiries suggested in the earlier practice in our courts but they are conveniently arranged in a suitable sequence in the case of *Mölnlycke AB and Another v Procter and Gamble Ltd and Others (No 5)* (1994) RPC 49 (CA) at p115. Four steps are identified. They include or restate in part what has been said above but may be taken to conveniently list the inquiries to be made:

> "(1) What is the inventive step said to be involved in the patent in suit?
>
> (2) What was, at the priority date, the state of the art (as statutorily defined) relevant to that step?
>
> (3) In what respect does the step go beyond, or differ from, that state of the art?
>
> (4) Having regard to such development or difference, would the taking of this step be obvious to the skilled man?"

[33] In *Ausplow (Pty) Ltd v Northpark* [2011] ZASCA 123 para 34, the Supreme Court of Appeal cited with approval the test in *Pozzoli Spa v BDMO SA & Another* [2007] EWCA (CIV 588) para 23 as follows:

'(1) (a) Identify the notional 'person skilled in the art'; (b) Identify the relevant common general knowledge of that person; (2) Identify the inventive concept of the claim or if that cannot readily be done, construe it; (3) Identify what, if any, differences exist between the matter cited as forming part of the 'state of the art' and the inventive concept of the alleged invention as claimed as construed; (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?'

[34] The applicant alleges that the invention claimed in the patent does not involve an inventive step and that the invention would have been obvious to a

person skilled in the art having regard to matter which, immediately before the priority date of the invention (31 January 2000) formed part of the state of the art.

[35] In relation to obviousness, it is the technical evidence by expert witnesses which constitutes the primary evidence in respect of (i) the nature of the step claimed to have been inventive;(ii) the state of the art as at the priority date relevant to that step; and (iii) the respect or respects in which the step goes beyond or differs from that state of the art: See *Schlumberger Logelco v Coflexip SA* 2003 (1) SA 16 (SCA) para 34 where it was explained:

'It is the technical evidence by expert witnesses in respect of the nature of the step claimed to have been inventive, the state of the art as at the priority date relevant to that step and the respect or respects in which the step goes beyond or differs evidence. It is clear from a reading of the *Ensign-Bichford* case, at 81D-83A, that the Court considered the question of obviousness on that basis. The technical evidence of the witnesses was considered without any reference to their opinions as to whether the invention was obvious. Expert witnesses who are either of the opinion that the invention is obvious or that it is not obvious would almost invariably give the primary technical evidence. In these circumstances it may sometimes be difficult to avoid them expressing the conclusion that the step is either obvious or not obvious, but that would do no harm so long as is borne in mind that that conclusion is immaterial.'

[36] It is common cause that the notional person skilled in the art is a person with sufficient qualifications and expertise, knowledge and skill in the field of mining, mineral processing and conveyor belt technologies. The applicant's expert is Mr Bodin. He has 15 years of practical experience in steel and metallurgy and holds a Master's degree in Engineering Physics. He holds the

position of manager: steel belts division of the applicant. The respondents's expert is Mr Pekka Santala, its vice president. He has a Master's degree in Engineering. He has experience in processing engineering, process metallurgy and in steel belt sintering.

[37] It was submitted on behalf of the respondents that Mr Bodin, the applicant's expert, was not skilled in the art of the patent because he had never worked with steel belts before the priority date. I disagree. His lack of practical experience in steel belts at the priority date does not disqualify him as an expert in respect of mechanics, sintering, steel and conveyor belts. According to his curriculum vitae, his field of study involves engineering and physics, combined with engineering studies in materials and mechanical engineering, and which focusses on ways to apply and develop new solutions in engineering. Accordingly, it is my finding that both parties' experts are skilled in the art as at the priority date of the invention.

[38] With regard to the inventive concept of the claim, I have already referred to it in the discussion on novelty. The inventive step is said to be contained in integers D to F of claim 1. These integers, respectively, are that: the conveyor belt is made of a perforated, at least one-part element made of a metal piece and allowing the gas to flow through; the perforations are arranged in zones

alternating with perforation-free elements parts; and the area of the perforations is about 20-60% of the total area of the conveyor belt.

[39] Concerning the differences with the state of the art, it suffices to state the following. The particular conveyor belt disclosed here includes a plurality of mutually adjacent endless, imperforate belt parts separated by perforated regions, and a support system for the conveyor belt. The conveyor disclosed in Drugge is therefore, either a single, endless belt or a plurality of separate endless belts arranged side by side. The belts in Drugge are not at least one-part elements, and to the extent they may be considered to be, they do not include any perforations. There is also no disclosure of the area of perforations being about 20-60% of the total area of the conveyor belt.

[40] The invention disclosed in Hartwig relates primarily to a two-piece chain link assembly and a chain for a grate conveyor or the like formed by a plurality of such two-piece chain assemblies connected together. It does not disclose perforations arranged in zones alternating with perforation-free element parts as required by integer E.

[41] The upshot of the above is that neither of Drugge or Hartwig discloses a conveyor belt:

(a) having one-part elements or multi-part elements connected to each other;

(b) in which each elements has alternating perforation-containing zones and perforation-free parts of the element; and

(c) in which the area of the perforations is about 20-60% of the total area of the conveyor belt.

[42] It remains to consider whether, viewed without any knowledge of the invention, the differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention. It was submitted on behalf of the applicant that a person skilled in the relevant art would be familiar with the sintering process of material on a conveyor belt. That person would, it was submitted, having regard to the teaching of Drugge and Hartwig, and with practical knowledge and experience of the relevant art, be aware of the continuously operated conveyor belt for sintering of a material bed comprising: (i) discrete elements connected to each other; (ii) elements with perforations arranged in alternating perforation and perforation-free zones in order to allow for sintering of a material bed conveyed on that belt; and areas of perforations that are in a range sufficiently substantial to ensure an effective sintering, namely an area ranging between an insubstantial and a substantial part of the total belt area.

[43] In this regard, sight should not be lost of the main thrust of the invention, which is to achieve a balance between a conveyor belt which allows for effective

heat transfer through the belt (which process occurs mainly in the central region of the belt); and limiting thermal and tensile stresses on the belt. The particular configuration required by integers E and F of claim 1 is not taught in the prior art documents relied on by the applicant. What is more, according to the invention, conveyor belt is relatively easy and economical to manufacture. In all the circumstances, I agree with the respondents that at the priority date of the invention in 2000, it would not have been obvious to a person skilled in the art to select the particular configuration of perforations in the at least one-part element of the conveyor belt of claim 1.

[44] In sum, the applicant has failed to discharge the onus resting on it to prove that the patent is invalid on any of the grounds it relied on. The application accordingly falls to fail. An order should be made in terms of section 74 of the Act certifying the validity of the patent.

[45] There remains the issue of costs. The applicant has failed in its application, and costs must follow the result. There are wasted costs occasioned by, among others, the second respondent's application to intervene. This was under the following circumstances. Initially only the first respondents was cited as the patentee, as according to the patent register. It its counter-statement the first respondents pleaded that the patent had been assigned to the second respondents, although the assignment had not been recorded in the register.

[46] The applicant then served its founding affidavit, followed by the second respondents' answering affidavit, purporting to substitute the first respondents, to which the applicant objected in its replying affidavit. Despite the impasse not having been resolved, the applicant enrolled the matter for hearing. The second respondents brought an application in terms of rule30 of the Uniform Tule of Court declaring the applicant's enrolment of the matter an irregular step. Eventually the second respondents brought an application to intervene. This resulted in the removal of the matter from the roll. The application to intervene was granted on an unopposed basis on 12 June 2015. The rule 30 application was withdrawn, without the second respondents tendering costs.

[47] In my view none of the parties was solely responsible for the postponement and the wasted costs of the rule 30 application. At the launch of the application, the applicant was unaware of the assignment of the patent from the first respondents to the second respondents. Inevitably the second respondents had to obtain leave of the court to intervene. The matter could have been approached more sensibly between the parties. As a result, none of the parties should shoulder those costs.

[48] In the result the following order is made:

1. The application for revocation of South African patent number 2002/5826 is dismissed with costs;

2. Each of the claims of South African patent number 2002/5826 are certified as being valid in terms of section 74 of the Patent Act 57 of 1978.

TM Makgoka
Judge of the High Court

APPEARANCES:

For the Applicant:	A J Bester SC Instructed by: Bouwers Inc., Johannesburg Van der Merwe Du Toit Inc., Pretoria
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