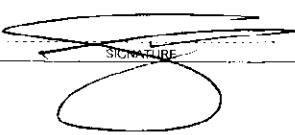


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IN THE NORTH GAUTENG HIGH COURT, PRETORIA
(REPUBLIC OF SOUTH AFRICA)

13/9/12
Case Number: 1991/2194

DELETE WHICHEVER IS NOT APPLICABLE	
(1)	REPORTABLE YES / NO.
(2)	OF INTEREST TO OTHER JUDGES. YES / NO.
(3)	REVISED
13/9/2012	
DATE	SIGNATURE

REGISTRAR OF THE NORTH GAUTENG HIGH COURT, PRETORIA PRIVATE BACS/PRIVAATSAK X67 JUDGE'S SECRETARY
2012 -09- 13
REUTERS KLERK PRETORIA 0001 GRIFFIER VAN DIE NOORD GAUTENG HOE HOF, PRETORIA

In the matter between:

AFRICAN EXPLOSIVES LTD

APPLICANT

and

SASOL DYNO NOBEL (PTY) LTD

RESPONDENT

JUDGMENT

Delivered on: 13 September 2012

POTTERILL J,

- 1 The Applicant is in terms of section 51(10) of the Patents Act, No 57 of 1978("the Act") applying to set aside two amendments to the claims of South African patent 1991/2194("the patent"). The Registrar of Patents (the Registrar)

granted the first amendment on 14 August 1992 and the second amendment on 25 May 2004. The applicant contended that the two amendments fell foul of sections 51(6) and 51(7) of the Act. The respondent is the patentee of the patent.

- 2 The applicant brought this application because the respondent instituted action against the applicant based on the infringement of the patent. The applicant filed a plea and counterclaim wherein *inter alia* the impermissible amendments were relied upon as defence and a basis for a counterclaim. The respondent filed an exception against the plea and counterclaim in essence objecting to reliance on the "inadmissible" amendments as a basis. The respondent was successful in that the Court upheld the exception. The applicant then resorted to this application.
 - 3 The patent is for an invention titled "LOW-ENERGY BLASTING INITIATION SYSTEM AND SURFACE CONNECTION THEREOF." This patent was granted on 29 January 1992 with the specification as originally filed. The patent in my understanding is for apparatus for use in blasting operations. The apparatus is non-electrical. It is a low-energy blasting initiation system having a surface connection and time-controlled initiation for detonation of a plurality of blasting charges. A detonator system including shock tubes are part of the apparatus.
 - 4 The respondent applied to amend a complete specification after advertisement of acceptance:
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"to correct certain discrepancies in the terminology of claim 1, 4, 5 and 6" and "to amend the claims to a scope similar to those presently being executed in a corresponding USA application.. [Annexure 1 to the applicant's founding affidavit.]

Pursuant to the first amendment application being advertised the applicant (or its predecessor in title) applied to the Registrar for an extension of time in which to oppose this amendment application. The applicant however took no further steps and the amendment was allowed by the Registrar on 9 March 1993. The applicant thus knew of this amendment for approximately 20 years.

The second amendment was advertised with no objection raised and was granted by the Registrar. I accept the version of the respondent that the applicant, or its predecessor in title, was aware of the second amendment at the latest on 26 October 2006 and not on 7 December 2010 as averred by the applicant.

- 5.1 The applicant applied for the first amendment to be set aside because it believed the amendment contravened sections 51(6) but specifically section 51(7) of the Act[par 35 of applicant's heads] which reads as follows:

"No amendment of a complete specification which has become open to public inspection after the publication of the acceptance of the specification in terms of section 42 shall be allowed if the specification as amended would include any claim not wholly within the scope of a claim included in the specification before amendment."

- 5.2 The applicant is relying on the amendments of claims 1 and dependant claims 4, 5 and 6 as a claim not wholly within the scope of the claim included in the specifications before the amendments.

Claim one unamended read as follows:

" A low energy blasting initiation system surface connection for initiation of non-directional signal transmission in at least one transmission tube having an outside diameter, by a low energy detonator comprising:

a housing having a channel formed therein for receiving the detonator, said housing being of a substantial thickness and size for ease of handling;

a resiliently deformable segment fixed at one end to said housing, at least a portion of said segment being of a reduced size and material thickness than said housing;

a tube engaging and gripping member fixed to the opposite end of said segment to form a slot between said housing and said member having a width slightly smaller than the transmission tube outside diameter, said segment deforming in response to force exerted on said member for positioning the transmission tube in said slot; and

positioning means on said housing for positioning the detonator within said channel end with an explosive end of the detonator in juxtaposed energy communicating relationship with the transmission tube, whereby activation of the detonator explosive end initiates non-directional signal transmission within the transmission tube.

Amended it read as follows:

"A low energy blasting initiation system surface **connector block**~~[connection]~~ for initiation **by a low-energy detonator** of non-directional signal transmission in ~~[at-least]~~ one **or more** transmission tubes having **a transmission tube** outside diameter ~~[by a low energy detonator]~~ comprising:"

a housing having a channel formed therein for receiving the detonator, said housing being of a substantial thickness and size for ease of handling;

a resiliently deformable segment fixed at one end to said housing, at least a portion of said segment being of a reduced size and material thickness **relative to [than]** said housing;

a tube engaging and gripping member fixed to the opposite end of said segment to form a slot between said housing and said member having a width slightly smaller than the transmission tube outside diameter, said segment deforming in response to force exerted on said member for positioning the transmission tube in said slot; and

positioning means on said housing for positioning the detonator within said channel end with an explosive end of the detonator in juxtaposed energy communicating relationship with the **one or more** transmission tubes], whereby activation of the detonator explosive end initiates non-directional signal transmission within the transmission tube." [The words in bold are the additions and the words in brackets are the words left out.]

The specific complaint of the applicant is the substitution of the word "surface connection" to "surface connector block".

5.3 The founding affidavit on behalf of the applicant was made by the applicant's patent attorney. He stated that "connection" means the "state of being connected" but a claim directed to a "block" is restricted to a block and did not extend to components which are connected to the block or which were connected to one another by means of the block. He submitted that:

"27.1 a claim which is directed to a "connector block" is limited to attributes of the connector block alone, and does not include at least one transmission tube nor a detonator; and

27.2 a "connection" includes a connector block and at least one signal tube and a detonator" [applicant's founding affidavit]

He thus submitted that the amendment was broader in scope than the unamended claim.

5.4 On behalf of the applicant it was argued that the *"dictionary meaning of the noun "connection" includes "the state of being connected; a link; a point or position at which two or more things are joined: coupling, joint, juncture, seam."*

In contrast thereto *"the dictionary meaning of the noun "connector block" means a "piece of material with flat surfaces on each side"; a "device for holding two parts of an electrical conductor in contact (electronics)"; and a device for connecting two cables without using plugs".*

In short thus it was argued that a "connection" describes only a junction point or a connecting link between two or more objects comprising of 4 elements. In contrast thereto a "connector block" is a device comprising of the four elements. The Court's attention was drawn to the specifications whereupon it was argued that a clear distinction could at all times be drawn between "a connector block"

and "connection point" and the two phrases were not used erratically. The amendment from a particular kind of connection limiting it to a particular kind of a connector for making a connection extended the scope of the claim and was impermissible in terms of section 51(7).

5.5 On behalf of the respondent Mr van Dijke attested to the answering affidavit. He was the Manager-Technical services, Explosives Business, of Sasol Nitro, a division of Sasol Chemical Industries Ltd. It was not disputed that he was an expert pertaining to the Patent before the court.

He stated that the word "connection" has two meanings, "being connected" and "a connecting part". *The word "connection" in the first line of claim 1 in the specification as originally filed has the aforementioned second meaning of "a connecting part". I say this for the following reasons:*

- (i) *The integers (i) to (v) of claim 1 as originally filed as set out above refer directly to features of the connection in the second sense of "a connecting part" or connector block only.*
- (ii) *The elements of a "connection" in the first sense of "being connected or related" are only referred to indirectly or functionally, by the language:*
 - a) *for initiation of non-directional signal transmission in at least one transmission tube having an outside diameter by a low energy detonator"**in interger (i); [Par 25 (e) of the answering affidavit]*

He maintained the same argument pertaining to integers (ii)-(v).

The original claims 2 and 3 refer not to "a connection" but to "*the connector block of claim 1*". Claims 4, 5 and 6 again refer to "*The connection of claim 1...*" and claim 9 to "*connection.*" He submitted that these discrepancies in the

claims were amended to achieve improved consistency in the terminology used. This was achieved by replacing the word "connection" with "connection block" as originally used in claims 2 and 3. He submitted that a "connection" included, but is wider in scope than a "connector block". He concluded thus that after the amendment claim 1 was fully within the scope of claim 1 of the specification as originally filed, albeit it narrower in scope.

5.6 It was argued on behalf of the respondent that on a proper reading of the specification as originally filed "connection" did not mean "the state of being connected" as argued by the applicant. The "connection" used in line 1 of claim 1 has the meaning of a connecting part. The word "connection" has two meanings, "a connecting part" or "being connected or related". In the specification "connection" is used in these two senses and from the context one can readily ascertain in which of the two senses it is meant. In claim one connection meant a connecting part. The scope is not widened, but is in fact narrowed down to a specific connecting part.

6 Both counsel for the applicant and respondent relied on the ratio of **Bristol-Myers Co v Beecham Group Ltd** 1981 (1) SA TPD 399 as to what is meant by the expression "the scope of the claim." On p406 A Goldstone J found "*The most relevant definition of the word "scope" in the Shorter Oxford English Dictionary is:*

"The sphere or area over which any activity operates or is effective; the field covered by a branch of knowledge, an enquiry, concept, etc."

I find this to be a good verbalization of what one understands "scope" to entail.

In comparing and interpreting the amended and unamended claim an objective test is to be applied. The words used must be interpreted in their ordinary grammatically sense;[**Gentiruco AG v Firestone SA (Pty) (Ltd)** 1972(1)SA 589 (A) at 615C-D.] Where the meaning of the claim is clear and unambiguous it is decisive and cannot be restricted or extended by anything else stated in the body or title of the specification [Gentiruco supra at 615E-F] The Court must construe the patent in its amended and unamended form and not the expert or skilled person in the art- [**B-M Group Ltd v Beecham Group Ltd** 1980(4) SA 526 (A)].

- 7 In comparing the amended and unamended claim 1 I cannot find that the scope of the specification as amended did include any claim not wholly within the scope of the claim included in the specification before amendment. "Connection" in claim 1 meant a connecting part because if read in context it comprised or consisted of certain features. These features are particular to an object and not to "a state of connection". The connection thus was a connecting part because the integers set out in claim1 refer to the features of the connection as a device. It cannot on the plain grammatical reading be interpreted as state of connection. By amending the word "connection" to the word "connector block" the connection identifiable as a connecting part has a name i.e. a "connector block." This name is no surprise because claims 2 and 3 already refer to a "connector block." Claims 4, 5 and 6 do to the contrary refer to a "connection" and not a "connector block." It was argued that from the distinction in the claims between "connection" and "connector block" the only inference is that the distinction was purposeful as contradistinction between the
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device and" the state of being connected". However upon an ordinary grammatical reading, in context, of claims 4, 5 and 6 these claims set out what claim 1 "further comprising" [comprised] of. If claim 1 referred to a device then these claims set out what the device further comprised of.

The applicant argued that the reference to at least one transmission tube and detonator in claim 1 made it clear that the state of connection consisted of a connector block and a detonator and at least one transmission tube. By amending it to only a connector block the invention was narrowed down thus broadening the scope. When reading unamended claim 1 it must be interpreted as follows:

"A low energy blasting initiation system surface connection [for initiation of a non-directional signal transmission in at least one transmission tube having a outside diameter by a low energy detonator] comprising..." [my emphasis]. The fragment in bold is, as was argued on behalf of the respondent, the "for-use" segment. The connection was to be used for initiation with a low energy detonator and a non-directional signal transmission. The "connection" was thus a "connecting part" consisting of elements for use in conjunction with a detonator and a non-directional signal transmission;" connection" in claim 1 was thus not only a junction point but a connecting part. The specification in the amended claim 1 thus did not include any claim not wholly within the scope of a claim included in the specification before amendment. The connection was thus a connecting part which is not narrower than a connector block and the scope of claim 1 was not enlarged.

8.1 The applicant relied on the second amendment as being in contravention of section 51(6) of the Act. Section 51(6) reads as follows:

"No amendment of a complete specification which becomes open to public inspection after the publication of the acceptance of the specification in terms of section 42, whether before or after it so becomes open to public inspection, shall be allowed if-(a) the effect of the amendment would be to introduce new matter or matter not in substance disclosed in the specification before the amendment; or (b) the specifications as amended would include any claim not fairly based on matter disclosed in the specification before amendment."

Unamended the portion of claim 1 complained of read:

"a tube engaging and gripping member fixed to the opposite end of said segment to form, a slot between said housing and said member having a width slightly smaller than the transmission tube outside diameter, said segment deforming in response to force exerted on said member for positioning the transmission tube in said slot; and"

Amended the specification of claim 1 read as follows:

" a tube engaging and gripping member fixed to the opposite end of said segment to form a slot between said housing and said member, [the slot being of arcuate cross-section, and being dimensioned and configured to receive and retain therein a plurality of transmission tubes disposed within the slot, and the slot] having a width slightly smaller than the transmission tube outside diameter, said segment deforming in response to the force exerted on said member for positioning the transmission tube in said slot; and" [the portion in brackets and bold were the additions]

Claim 7 unamended reads as follows:

"A method of initiating a plurality of remote blasting signal communicating elements with a low energy blasting initiation system wherein an initiation signal is transmitted in a low-noise, time controlled manner from a signal initiation source to the remote elements, the method comprising the steps of:-

.....

.....

Arranging said outgoing transmission tube opposing ends in side-by side relationship with one another and in juxtaposed energy communicating relationship with one another and in juxtaposed energy communicating relationship with said detonator explosive composition whereby activation of said detonator explosive composition initiates non-directional signal transmission within said outgoing transmission tubes for transmitting the initiation signal to the remote elements."

Amended claim 7 reads as follows:

"A method of initiating a plurality of remote blasting signal communicating elements with a low energy blasting initiation system wherein an initiation signal is transmitted in a low-noise, time controlled manner from a signal initiation source to remote elements, the method comprising the steps of:"

.....

.....

*Arranging said outgoing transmission tube opposing ends in side-by side relationship with one another and in juxtaposed energy communicating relationship with one another and in juxtaposed energy communicating relationship with, **[and in an arcuate array about,]** said detonator explosive*

composition whereby activation of said detonator explosive composition initiates non-directional signal transmission within said outgoing transmission tubes for transmitting the initiation signal to the remote elements. [the portion in brackets and bold being the amended portion]

- 8.2 In the founding affidavit it was submitted that because in the unamended claim the specification in claim 1 did not disclose a slot "being of arcuate cross-section" the amended specification now attributed a specific curved shape to the slot. The amended specification of claim 1 thus included new matter and was not fairly based on matter before the amendment.
- 8.3 The specifications in the unamended claim 7 did not specify the configuration of the transmission tube opposing ends. After the amendment the disposition of the transmission tube opposing ends were qualified. The amended specification of claim 7 thus included new matter and was not fairly based on matter before the amendment.
- 9.1 The main argument on claim 1 was that although the cross-section shown on figure 2 of the slot 37 reflected an aspect of the side wall as curved, the other substantial aspects of the side wall are linear, angled and funnel-shaped. The slot did not define a form of a bow, but an irregular J-shape which is not arcuate.
- 9.2 In claim 7 the amendment attributed a very specific shape to the lay-out. Figure 4 did not depict an arcuate arrangement of the transmission tubes, in fact three
-

transmission tubes were aligned parallel and only one transmission tube was positioned at a virtual right angle relative to the other three transmission tubes.

10.1 In the answering affidavit the respondent denied that the specification as originally filed did not disclose a slot as being of arcuate cross-section. Reliance was placed on figure 2 which explicitly showed the slot 37 extended generally in perpendicular relation to a longitudinal axis housing 11 and therefore the detonator 15 was extended at a right angle in a J-shape, not a L-shape, to form a curve at the base. The original specification did therefore disclose a curved cross-section, i.e. an arcuate cross-section.

10.2 Pertaining to claim 7 the respondent pointed out that in the original specification and amplified by figure 4 a curved or arcuate array of tubes 40 about explosive 22 contained in the housing 20 of detonator 15 was explicitly shown.

11 On behalf of the respondent it was argued that in Mr Van Dijke's answering affidavit the features of a slot being of "arcuate cross-section" and the "outgoing transmission tube opposing ends being arranged in an arcuate array" were broadly described in the original specification. There is nothing in the original specification which is inconsistent with the features and the original specification is not wholly silent on the feature.

12 Both counsel referred to **Bateman Equipment Ltd and Another v Wren Group (Pty) Ltd** 2000(1) SA 649 SCA wherein Harms JA set out the test to be

applied when considering whether an amendment offended against section 51(6) of the Patents Act.:

"[20] It is a basic requirement of patent law that a patentee is not entitled to claim more than he has disclosed and identified as the invention in the specification. That does not mean that the claim may not extend beyond the examples or embodiments disclosed, but only that the claim may not be for something not covered by the general or generalised disclosure of the invention. ... Transposed to the amendment stage, and taking into account that the effect of an amendment is retrospective, the objective of s 51(6)b) is to prevent an inventor from claiming ex post facto something not contained in his original disclosure which has become available for public inspection. The previous Patents Act 37 of 1952, for instance, had a substantially identical requirement(s 36(3)), namely that the amended claim had to be limited to matter disclosed in substance in the original (cf Ethyl Corporation's Patent [1972] RPC 169 (CA) at 195). In that judgment the point was made that the provision should be interpreted in a broad common sense way (at 192 line 23) and that it should be given a liberal interpretation so as to permit any fair amendment which has already in substance been disclosed (at 195 line 9).

[21] The Mond Nickel questions, having been formulated in a different context, have to be adapted in order to fit facts of the present case. So adapted one must determine first whether the objectionable part or integer 'can be said to have been broadly described' in the original specification; then one must consider whether there is anything in the original specification which is 'inconsistent with' the integer; and last whether the original specification is 'wholly silent' on the integer.... "

13.1 In the original specification the slot's width was described. It was positioned as *"a slot 37 in generally perpendicular relation to the low energy detonator 15. The slot could be configured to receive a plurality of tubes. "The slot 37 may be extended at a right angle in a J-shape at its base becoming parallel to the detonator axis."*

In the original specification one side wall was J-shaped but the whole slot was not completely curved. The shape was broadly described in the original specification; the slot described and depicted a J-shape which had an arch, bow or curve in it. The original specification was not wholly silent on the shape or the nature of the shape of the integer because a section of the slot is curved. The fact that one section of the slot is straight and not curved is not inconsistent with the integer because the base of the slot was curved. The curve of the slot was covered by the general disclosure of the invention in referring to it in a "J-shape."

With a common sense and liberal approach I can not find that the amendment offends section 51(6) in setting out new matter or is not fairly based on matter before the amendment.

13.2 It was argued by the applicant that in claim 7 the amendment attributed a very specific shape to the lay-out of the transmission tubes. This was not so in the original specification and thus it introduced new matter.

Figure 4 depicted three transmission tubes that were aligned parallel and one transmission tube was positioned at a virtual right angle relative to the other three transmission tubes.

Mr Van Dijke pointed out that in the original specification and amplified by figure 4 a curved or arcuate array of tubes 40 about explosive 22 contained in the housing 20 of detonator 15 was explicitly shown. His conclusion was;

"Accordingly, the specification as originally filed discloses outgoing transmission tube ends "in an 'arcuate array about' a detonator explosive composition" [par 32(c)]

There was no reply to this paragraph in the replying affidavit.

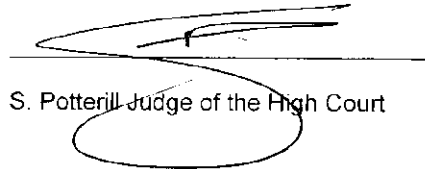
I shall answer the question whether this amendment offended s51(6) with purposive construction through the eyes and with the learning of Mr Van Dijke rather than with the meticulous lawyer verbal analysis of Mr Rademeyer; **Sappi Fine Papers (Pty)Ltd v ICI Canada Inc (formerly CIL Inc)** 1992 (3) 306 (A) at 319F-J.

I accept Mr Van Dijke's assertion that the original specification supported by figure 4 (upon which both parties relied) did disclose outgoing transmission tubes ends in a curve about the detonator explosive composition.

There is accordingly not new matter after the amendment of claim 7 and the amendment was fairly based on matter in the original specification.

- 14 The respondent prayed that the costs of two counsel be granted. The reason forwarded upon my questioning as to why two counsel were necessary, was not sound. It was argued that the applicant is delaying the trial with this application. I do not find this reason to grant the costs of two counsel.

- 15 I accordingly make the following order:
The application is dismissed with costs.



S. Potterill Judge of the High Court

Matter heard on: 03 September 2012

Delivered on: 13 September 2012

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