

## **PATENTS ACT 1977**

### **IN THE MATTER OF**

GB Patent No. 2282144 in the name of Minnesota Mining & Manufacturing Company and Applications under Section 13(1) and 13(3) by John Birtles and Colin Lovatt and a Reference under Section 37(1) by Evode Limited and EP Patent No. 0638392 in respect of a Reference under Section 12 by Evode Limited.

### **INTERIM DECISION**

1. GB Patent No. 2282144 was filed as application No. 9316715.3 on 11 August 1993 without a claim to priority and was published on 29 March 1995, naming as inventors Roy Stubbs, James F Morris-Adams and Michael J Hughes. It was granted for the purposes of section 25(1) on 15 October 1997.

2. The patent as granted relates to abrasive elements and comprises, in particular, two independent claims as follows:-

*"1. An abrasive element comprising a substrate bearing layer of a moisture-cured hot melt polyurethane adhesive having abrasive particles embedded therein."*

*"16. A method of preparing an abrasive element which comprises applying a layer of a moisture-curable hot melt polyurethane adhesive to the surface of the substrate, depositing abrasive particles on said layer whilst the polyurethane is in a molten state and curing the polyurethane adhesive."*

For the purposes of this decision the significant features of dependent claims are that the substrate bearing layer may be over-coated with a size layer, a pre-size layer may be provided between the substrate and the hot melt polyurethane adhesive and the substrate may be selected from paper, plastics fibres, fibrous bases, woven and non-woven fabrics, foams, and laminates thereof. A particularly preferred product is an abrasive sponge in the form of a foam strip of thickness about 5mm, having abrasive coated on one major surface.

3. EP 0638392 is the equivalent of the GB application. Its GB designation was withdrawn on 25 July 1997 and proceedings before the EPO were suspended on 16 October 1997 to await the outcome of these entitlement proceedings.

4. The present proceedings were initiated by the filing of Form 2/77 on 14 October 1997. There were some procedural problems but, in essence, John Birtles and/or Colin Henry Lovatt are asking to be mentioned as inventors of part or all of the subject matter included in the UK Patent. Evode Limited by virtue of being employers of Birtles and Lovatt are asking whether Minnesota Mining and Manufacturing Company (hereinafter 3M) should have been granted the sole entitlement to the patent in respect of the matter contributed by Birtles and Lovatt and wish either to be able to make a new application for that matter under section 37(4) or that they should be included amongst the persons registered as proprietors of the patent under section 37(2). In addition Evode are making similar requests under sections 12(1) and (6) in respect of EP 0638392.

5. Evidence on behalf of the applicants has been filed by James Frederick Morris-Adams, Director of Sandmaster, a company engaged in the manufacture of abrasive products, John Birtles, a Technical Services Manager for Evode Limited, Colin Henry Lovatt, Quality Manager for Evode Limited, John Morris, of Evode Limited who is a consultant in adhesives technology, Christopher Chiles, an employee of Nordson (UK) Limited, a company involved in the development and sales of equipment for the coating of substrates with plastics films, and Cecil French-Lynch, a Patent Agent representing the Referrers in the present proceedings.

6. Evidence on behalf of the opponent has been filed by Roy Stubbs, an employee of 3M UK whose main duties involve research and development of abrasive products and who is named as one of the inventors in the patent in suit, and Paul Alan Bowman, a Patent Attorney with Lloyd Wise, Tregear & Co who was responsible for the preparation and filing of both the GB and EP applications.

7. The hearing eventually took place before me on 22 May 2000 with Mr Simon Thorley QC, instructed by Castles, appearing on behalf of the applicants and Mr Colin Birss, instructed by Lloyd Wise Tregear, appearing on behalf of the opponents.

8. At the hearing cross-examination took place of Messrs. Lovatt, Birtles, Morris-Adams and Stubbs. I found all four to be honest and reliable witnesses who sought to provide definitive answers to the questions put to them within the areas of their own competences and within their

ability to remember events which for the most part were at least seven years previous. Quite rightly, they consistently avoided the temptation to attempt answers to questions which were outside their competence or their ability to remember events.

9. I ought to add at this point that Mr Thorley made clear, in his skeleton argument on behalf of the applicants and at the hearing, that there was now no dispute about the right of Mr Stubbs to be named as inventor. The argument was therefore about whether Birtles and Lovatt should be also be named as inventors under section 13 of the Act and whether, by extension, Evode as their employer was entitled to be included as a co-proprietor under section 37(2). If the answer to this argument was in the affirmative then, under section 12, Evode would be granted a declaration that they are entitled to be granted a patent on the European application jointly with the present applicants.

### **The law**

10. Since counsel for both parties were essentially agreed on the main issue to be decided and the relevant sections of the Act which should influence the order that ultimately I shall have to make I shall refrain from a mere quotation of all those sections. Instead I shall refer only to as much of the law as I need to and to the one precedent decision raised by both as providing what I needed to understand about the meaning of the term “inventor” so as to come to an appropriate decision in the context of the present proceedings.

11. Section 7(3) defines “inventor” in relation to an invention as being the actual deviser of the invention and “joint inventor” as being construed accordingly. Decisions about who was the inventor(s) in a particular case will obviously turn on an objective analysis of the facts of the making of an invention and will frequently beg the question of what, in the context, is to be understood as the “invention”. Not for the first time was my attention drawn to the decision of the Court of Appeal in *Henry Brothers (Magherafelt) v. Ministry of Defence and Northern Ireland Office* [1999] RPC 442 where it was held that to ascertain inventorship one must identify the inventive concept.

12. At the hearing I took it as accepted that Mr Thorley had no problem with two points raised by Mr Birss in his skeleton argument; (1) that a person who had not contributed to the inventive concept was not a joint inventor and (2) that as a matter of principle, a person who comes up with an idea in parallel to the patentee but does not communicate it to the patentee plainly has no right to be named as inventor regardless of any other circumstances.

13. Where he disagreed with Mr Birss, it seemed to me, was where the latter in his skeleton argument seemed to be necessarily equating an “idea” somebody may have with “inventive concept”. In some cases it may be right to equate the two but there were other cases, of which Mr Thorley claimed this was one, where the inventive concept resided not just in the idea but also in the means of realisation. In the final analysis I am not sure that Mr Birss was disagreeing with this general proposition but was not conceding to Mr Thorley’s claim about the present case. The real point Mr Birss was trying to make was that the requirement for joint inventorship was some form of collaboration. In his view, on the facts, the best that the applicants could show was some kind of parallel work which did not justify them being named as joint inventors. Clearly, then, my decision is going to be influenced by an analysis of what both parties were doing over the relevant period and what it was that happened when eventually they came together and information started to flow from the one to the other.

### **Historical overview**

14. Taking an overview of the present proceedings it is important to understand the relationship between three firms - Sandmaster, Evode and 3M. Over the period in question, which can roughly speaking be taken as 1989 to 1994, Evode were involved in selling adhesives into the abrasive pad market and they, through their predecessor companies including Tivoli Kay Adhesives, could trace a commercial relationship with Sandmaster going back to 1981. Sandmaster are manufacturers of abrasive pads and one of their customers, certainly over the period in question, was 3M. This placed Sandmaster in a unique relationship to both parties in the dispute and opened the potential, because of the overlap of interest between Evode and 3M, for considerable disagreement about the contribution of each in the development of the invention. Broadly speaking it is the case that 3M claim to have invented the use of hot melt adhesives in the manufacture of abrasive foam pads completely independently. If Evode had a role in such manufacture it was, in 3M’s opinion, merely as a supplier of suitable adhesives. Evode on the other hand claim that they made an inventive contribution to the invention via information and the provision of samples flowing through Sandmaster.

15. For ease of understanding of what was going on over the period 1989 to 1994 it is convenient to focus on shorter periods within that time scale by reference to the evidence filed in the proceedings. At the hearing I understood it to be the case that there was little or no dispute about the sequence of events leading to the invention and filing of the patent applications, although differences about the significance of at least some of the events has, of course, led to the present disagreement between the parties.

## **The period from 1989 to the end of 1991**

16. The significant evidence in respect of this period is from Roy Stubbs on behalf of 3M who traces his conception of the idea of using reactive hot melt adhesives as the make adhesive and possibly the size coat in the production of coated abrasives back to a visit he made to a PAKEX exhibition in April 1989. In his 3M notebook, on 21 April 1989, he made the note, as an idea from PAKEX, "Evaluate National Adhesives Reactive Hot Melt as make adhesive for abrasive/may even work as size coat". On the same day, on a copy of National News published by National Starch and Chemicals Limited, he made a manuscript note which he passed to his superior, Mr H Rude, inquiring whether anything similar had been used by the 3M parent company in the USA.

17. On 15 February 1990 Stubbs conducted experiments by coating paper with molten 3M 3880 adhesive, a moisture curing hot-melt polyurethane adhesive, and drop coating abrasives on the molten adhesive. The results were sufficiently promising for him to write a draft Record of Invention and, on 19 February 1990, to carry out tests on the samples he had prepared.

18. It was then not until the end of 1991 that Stubbs got back in touch with using hot melt adhesives. He became directly involved with Sandmaster on 21 May 1991 when he visited the factory but that was in connection with providing them with suitable abrasive materials to be applied to foam blocks which had been coated with a clear adhesive from an organic solvent solution. Work done in the latter half of 1991, but still using the solvent coating technique, suggested that abrasive foam blocks were of significant commercial potential. He was aware though of the environmental disadvantages of using organic solvent coating systems.

19. Stubbs' Laboratory Notebook contains a record dated 18 November 1991 to the effect "write HM adhesive coating RI on sponge" which signified to him that he needed to write a Record of Invention detailing the use of hot-melt adhesive on foam. A Record of Invention based on his original experimental work was in fact completed on 19 December 1991. In that document he indicated that further work was necessary to produce a reasonable quality product.

## Events of 1992

20. Continuing with Stubbs' evidence, but noting that it was in 1992 that Birtles and Lovatt came into the picture, it appears that in the first part of 1992 Sandmaster were attempting to get an agreement with 3M about the investment necessary for the installation of a new coating machine for 5mm foam because it had become clear that they could not produce enough of the foam to meet the potential market. In a letter dated 18 June 1992 concerning the acquisition of a new machine, Sandmaster indicated they were "actively examining the possibilities of using a hot-melt glue, in preference to the current nitrile and solvent type, for environmental reasons". Stubbs mentions in paragraph 11 of his statutory declaration that this was the first occasion that he had become aware that Sandmaster were thinking of using a hot-melt adhesive. It is also clear from that letter that samples of any proposed changes to the product would of course be submitted to 3M for approval.

21. It is apparent from an e-mail sent to Donna Bange, a patent liaison in 3M USA, on 24 April 1992 that Stubbs was having trouble getting enough resources and time to take forward the development work in relation to hot-melt adhesives in the UK. Clearly he believed there was potential in using the hot-melt system but had not been able to take the work further than his experiments conducted in February 1990.

22. On 16 July 1992 Stubbs had a telephone conversation with John Bryant, a colleague at 3M Canada, who had been coating foam with hot-melt adhesives such as ethylene vinyl acetate (EVA). Absorbtion by the foam was obviously a problem which led to Stubbs considering that it might be necessary to seal the foam with a pre-size although this was not particularly desirable because it would add a step to the manufacturing process. Bryant indicated another problem as being the rapid cooling of the adhesive layer which prevented adequate wetting of the abrasive grains.

23. A reminder that Sandmaster were working on replacing solvent-based adhesives with hot-melt adhesives was contained in a letter from Mr Morris-Adams dated 29 July 1992. There was in existence a confidentiality agreement dated 23 July 1990 between Sandmaster and 3M and it would appear that there was a difference of opinion between the parties about the interpretation of this agreement. This was referred to in Mr Morris-Adams letter and subsequently, on 24 August 1992 3M wrote to Sandmaster outlining the relevant points they regarded as confidential. Amongst those points was one which said:-

*"Although we have not disclosed anything specific, the fact that we are, or have been, working on HM adhesives for abrasives".*

24. Although Stubbs could not be sure of when he was first supplied by Sandmaster with samples of foam coated with abrasive using a hot-melt adhesive he was definitely in possession of samples by 25 August 1992. These samples were an improvement on earlier ones but still suffered from unacceptably high mineral loss and because of this Stubbs modified some of the samples by coating them with a water-based, curable size or with a water-based EVA size. These tests, conducted on 27 August 1992, were reported in his laboratory notebook and summarised in a letter to Sandmaster dated 1 September 1992. On 14 October 1992 he applied acrylic size coatings to further samples obtained from Sandmaster.

25. As a result of an agreement between 3M and Sandmaster during 1992 the building of a new coating machine began at Sandmaster. Stubbs visited Sandmaster on 26 November 1992 and on 4 March 1993 reporting that the machine was being built.

26. As a background to the activities of the applicants in 1992 it is clear that during 1990 and 1991 they were motivated by the need, partly encouraged by the Environmental Protection Act 1990, to move from the use of solvent-based adhesives to other adhesives of which aqueous adhesives and hot-melt adhesives were possible alternatives.

27. The first meeting of significance in 1992 between Sandmaster and Evode was on 3 April 1992 when Morris-Adams of Sandmaster met with Lovatt, Birtles and Griffiths of Evode for the purpose of showing Morris-Adams an abrasive pad manufactured by Lovatt in laboratories of Evode supervised by Birtles. This pad used a moisture-curable hot melt polyurethane adhesive made by Evode and known as Tivomelt 9625, this adhesive being more satisfactory than one previously used by Lovatt which was a non-reactive EVA polymer. The interest shown by Morris-Adams was such that Lovatt and Birtles went away to develop the use of moisture-cured hot melt polyurethane adhesives in the manufacture of abrasive pads, primarily with Sandmaster in mind. In his declaration, at paragraph 4, Morris-Adams makes clear that he made no technical contribution to the production of the sample other than to suggest the use of hot melt adhesives in general. Birtles, in his declaration at paragraph 7, referring to the same meeting, says that he was not aware of Sandmaster being in receipt of information from any other source on the use of a hot-melt adhesive in the manufacture of abrasive pads.

28. Birtles subsequently visited Morris-Adams on 10 June 1992 with John Micklethwaite,

standing in for Chris Chiles, of Nordson UK Limited, to look at Sandmaster's abrasive pad manufacture and to suggest equipment suitable for use to apply moisture-cured hot-melt polyurethane adhesives in the manufacture of such pads.

29. Trials of the production of abrasive pads using a Tivomelt 9625 make coat were then made at Nordson's on 15 July 1992 and 27 July 1992 by Chris Chiles with Birtles being present at the first trial and Birtles and Morris-Adams at the second. Samples produced at the trial on 27 July were for Sandmaster to pass on to 3M for their evaluation. Morris-Adams confirms in paragraph 5 of his declaration that he passed the samples on to 3M in, he thinks, early August, which would be in line with paragraph 24 above in respect of Stubbs' evidence.

30. Lovatt then visited Nordson on 14 August 1992 to conduct trials with Chris Chiles using a coating method involving transfer coating from an initially coated release paper. Thereafter, from about October 1992, he recognised that a primer coat might be necessary to alleviate the problem of the absorption of the hot-melt adhesive within the pores of the foam.

31. In the last quarter of 1992 it is clear from Birtles' declaration that Morris-Adams was negotiating with Neil Griffiths, business manager adhesives at Evode, for possible supply to Sandmaster of Tivomelt 9625 for the production of abrasive pads for 3M and was also in contact with Evode, in conjunction with Nordson, about the machinery necessary to produce the abrasive pads.

### **Events of 1993**

32. The new equipment appears to have been installed at Sandmaster on 30/31 March 1993. Things did not proceed well with the new product. Stubbs was not impressed with the samples previously received from Sandmaster and modified by him with a size layer and it seems from paragraph 18 of his declaration that he was asked to become directly involved with the new product.

33. There then followed a period of only about 3 months or so when Stubbs was much more actively involved with Sandmaster than any representatives from Evode. His evidence indicates that both Evode and Chris Chiles of Nordson were not as helpful as expected, something which in the case of the former he puts down to their takeover by Laporte.

34. At meetings on 27 April, 29 April and 4 May, Chiles being present at the lattermost,



coatings were made and/or suggested using different adhesives but it was clear that the machine was not capable of providing an accurate, pre-determined coat weight leading to a uniform coating. Also present at the meetings on 29 April and 4 May was Ken Preece of Henkel who provided a sample of one of their adhesives as an alternative to the Evode adhesives previously used by Sandmaster. Throughout May and June 1993 Stubbs visited Sandmaster on a number of occasions and was assisted by Mr E Hulley, a contract electrician with Sandmaster, in a number of coating trials for the prime purpose of adjusting the machine to provide even coating, to determine the coating weight which would be obtained by particular machine settings and to get some idea of the effects of varying the coating conditions.

35. During these trials EVA had been used as a flushing material for the machine and as a cheap alternative for reactive hot-melt adhesive to assess machine operation. Stubbs was aware of the potential of EVA as a pre-size and is certain he discussed it with Hulley but there is no evidence to that effect. He was also aware of EVA being used in an unsuccessful experiment as a hot-melt make but thought it worth repeating on equipment built specifically for abrasive coating.

36. Over the period 23 to 29 June 1993 Stubbs ran a series of trials under defined conditions and the samples were evaluated for minerals loss and abrasive quality under dry and wet conditions over the period 1 to 8 July 1993. His report of these trials, typed on 29 July, demonstrates that reasonable quality products could be obtained using a higher coating weight of moisture-cured hot-melt polyurethane adhesive without an EVA pre-size but that comparable or better quality products were obtained using a lower coating weight of the hot-melt adhesive and an EVA pre-size. A further set of trials were run on 14 July, tested over the period 21 to 23 July, and a report typed on 30 July.

37. Stubbs' comments on these trials, in paragraph 23 of his declaration, is that he basically started from first principles and that the results were the only scientific ones that could be relied upon to determine the features necessary to make an abrasive product.

38. During this period, when Stubbs was extremely involved with Sandmaster, Birtles made one visit to Nordson and Chiles made one visit to Sandmaster. The visit to Nordson took place on 14 April 1993 for trials of hot-melt bonding of grit to foam for another potential customer. An EVA adhesive was used in a trial in which some foam was coated by Chris Chiles with a light coating of EVA (Thermaflo 6876) as a possible prime coat with the idea of reducing the amount of the more expensive moisture-cured polyurethane melt adhesive. This EVA primed foam was

returned to Sandmaster for coating there with the polyurethane adhesive. The visit of Chiles to Sandmaster took place on 10 June for a further trial using the EVA primer and a Tivomelt abrasive binder.

39. The only time that Stubbs and Birtles got together to discuss technical details was on 12 October 1993 at Sandmaster. This, of course, was after the filing of the patent application. Stubbs was not aware of ever meeting or talking to Lovatt.

### **The drafting/filing of the patent application**

41. Information about these is largely derived from the evidence of Paul Bowman, a Chartered Patent Attorney with Lloyd Wise, Tregear & Co. This evidence was not challenged at the hearing and therefore I take it to be a substantially accurate account of how the inventorship issues in relationship to the application as filed were decided.

42. Mr Bowman had regularly been involved with inventions developed by 3M United Kingdom plc at Atherstone and it would appear that the first meeting attended by him at which the technology associated with the present invention was discussed was on 28 April 1993. At that meeting he was advised that the invention was being developed at Sandmaster under an agreement between 3M and Sandmaster and that any patent rights belonged to 3M. Stubbs was at the meeting and was told that the Record of Invention was insufficient to allow a patent application to be prepared. On 30 April he supplied Bowman with further information but this still was not sufficient and Bowman tried on 4 May to get hold of Stubbs to convey this message. Stubbs was not available but Dr G Buchan, a patent liaison with 3M, told Bowman to take no action since coating trials to date had proved unsuccessful.

43. In the event a draft specification, prepared by Bowman following a more promising visit to Atherstone on 15 July, was circulated to Stubbs, Buchan and a 3M attorney in USA on 28 July 1993. An accompanying letter to Stubbs, shows that Bowman had based the application on experimental details supplied by Stubbs. This draft specification was revised twice and eventually filed on 11 August 1993 in the name of 3M without designation of inventorship. There seems to be nothing contentious about the technical content of the specification except for Sample 3. This sample is not obviously derived from Stubbs' work as he acknowledges at paragraph 25 of his declaration and he could only guess as to its origin. 44. The inventorship issue came into focus at the end of 1993/beginning of 1994 with the result that Bowman wrote to Morris-Adams on 20 January 1994 requesting information about any contribution he may have made to the

invention disclosed and, on the same day, to Stubbs requesting a chronological account of the development of the invention and any contemporary documents.

45. A significant meeting, to discuss the issue of inventorship, took place at Sandmaster on 2 February 1994. Present were Bowman, Stubbs, Morris-Adams, Hughes and Caroline Egan, Sandmaster's solicitor. Morris-Adams and Hughes referred to the trials at Nordson in June 1992 which showed that they had thought of using hot-melt adhesive to bond abrasive grains. Bowman, aware that representatives of Evode (presumably Birtles and Lovatt) were present at these trials asked whether they could have contributed to the idea but was told that their contribution was simply to supply the adhesive from their commercially available range. As a result of the meeting Bowman wrote two significant letters to Mr David Cleveland, a US attorney in the European Legal Department of 3M in Brussels.

46. The first letter, dated 3 February 1994, reflects his thinking at the time and contains the following paragraph:

*".....there is clearly no dispute that Roy Stubbs is an inventor, we have voluminous internal 3M documentation to this effect and it was not disputed by Sandmaster. It is probable that Sandmaster independently had the same idea, since they conducted some trials using a moisture-cured hot-melt polyurethane adhesive to bond abrasive particles on sponge, which were not suggested by 3M and in which 3M personnel did not take part, although they were given samples of the results. The Sandmaster position is that they had thought of using hot-melt adhesives before they were involved in trials on behalf of 3M, since they were concerned with their solvent emissions....and in view of the potential volumes of the 5 millimetre sponge product which 3M intended to sell, they would need to find an alternative to solvent coating. The alternatives to solvent coating were water-based coating which required long drying times and hot-melt adhesives which were the obvious favourite. Unfortunately, there was little documentation between the companies at that time and since 3M were aware of the potential of using hot-melt adhesives many months before the Sandmaster trials, the point I am trying to resolve is whether anyone from 3M suggested to Sandmaster that it might be a good idea to replace the solvent system with a hot-melt system. In other words, did 3M give Sandmaster the seed of the invention, or did Sandmaster independently come up with the same idea, albeit, after 3M."*

47. The second letter is dated 11 April 1994 and indicates that Bowman is now in a position to give a preliminary view on inventorship. For the purposes of the assessment he had to rely on the verbal explanations provided by Messrs. Morris-Adams, Hughes and Stubbs and the 3M documentation. No documentation had been forthcoming from Sandmaster. Reviewing the

history of events, Bowman comes to the following conclusions:

*"It seems to me that Sandmaster, namely, Messrs. Morris-Adams and Hughes, were considering the possibility of using a hot-melt adhesive at the same time that 3M were considering the same possibility. I have found no evidence to suggest that personnel from 3M planted the seed of this idea in Sandmaster. Sandmaster arranged the original trials using a hot-melt adhesive without reference to 3M. Thus, there appears to have been independent development of the idea of using a hot-melt adhesive and thereafter the joint development work involving the trials at Sandmaster reduced the idea to practice and provided much of the experimental evidence to support the filing of a patent application. Roy Stubbs is clearly the main inventor of the application and it is his efforts that have resulted in the best mode for the production of the product. Messrs. Morris-Adams and Hughes independently arrived at the general concept of utilising a hot-melt adhesive system and provided 3M with the results of their original trials, which may have assisted the further development of the invention.*

*Accordingly, unless other information comes to light, I believe Messrs. Stubbs, Morris-Adams and Hughes should be named as the inventors on this application."*

Subsequently, on 2 December 1994, the statement of inventorship was filed naming Stubbs, Morris-Adams and Hughes as inventors.

### **Summary of the submissions**

48. I believe I can summarise fairly Mr Birss' submission in the following manner:-

a) The inventive concept that matters in the present case is the idea of using moisture cured hot melt polyurethane and this was the idea that Stubbs had back in 1989/90. The later provision of particular polyurethane adhesives does not mean that the inventive concept has moved away from this basic idea.

b) Independently, Birtles and Lovatt were working on some kind of parallel project and eventually samples they had produced pass to 3M via Sandmaster as a contribution to the invention but not in any way that contributes to the inventive concept.

c) Evode, by virtue of the actions of Birtles and Lovatt, only really stand as suppliers of suitable polyurethane adhesives in the same way as Henkel did when they were called to the meeting on 29 April 1993. This position of supplier does not elevate them to the further position of joint inventor.

49. On the other hand, Mr Thorley argued as follows:-

a) There was no disputing that Stubbs had the basic idea in 1989/90.

b) That basic idea only developed into an inventive concept in the period leading up to May 1993 when a working embodiment based on independent work by Birtles and Lovatt was passed to 3M provided the springboard for the development work subsequently carried out by Stubbs.

c) Evode were not simply involved as adhesive suppliers and their position was very much different to that of Henkel.

### **Consideration of the submissions**

50. I think I must start with an analysis of how I see the inventive concept in the present case. This, to my mind, must be fundamental in any case where the ownership of an invention is called into question and can only be decided by an objective analysis of the facts in the case. I have no doubt that in some cases it is possible to equate an “idea” with “inventive concept” but I have to say that in many, perhaps the majority of cases, especially in the chemical or materials arts, more is needed than the mere idea to truly say that the inventive concept has been defined. In my opinion this is such a case and I cannot go along with what Mr Birss seemed to be arguing that once Stubbs had thought of the idea of using hot melt polyurethanes as a make coat that was the end of it as far as the inventive concept was concerned. Mr Thorley’s submission that the inventive concept was the idea plus the means of realisation seems much more realistic in a case of this type. Therefore, it is with this latter view of “inventive concept” in mind that I must judge the actual facts in this case.

51. There is no disagreement about the fact that Stubbs originally had the idea of using a hot melt polyurethane adhesive make coat and possibly as a size layer in 1989/90. This idea came out of his attendance at the PAKEX exhibition but on his own admission during cross-examination by Mr Thorley he did not know at that time whether it would work or not. A crude experiment conducted in February 1990 by coating 3M 3880 adhesive on paper produced a product which Stubbs confirmed as one which would not have been acceptable to the customer. This, from what he said under cross-examination, was because he did not have the right process rather than being a judgement on whether the 3880 adhesive was an acceptable one.

52. Going on from this crude experiment Stubbs further admits that not much had been done at 3M up to the middle of 1992 to take forward the idea of using a hot melt adhesive. He, himself, had been working on another project at 3M and had not had the time to seek approval and take his work of 1990 forward. However, work had been going on at Sandmaster involving extensive trials on hot melt adhesives, work which Stubbs agreed with Mr Thorley he had not been able to do. By 29 July 1992 Stubbs became aware that such work was going on and by 25 August of the same year was in receipt of samples from Sandmaster. It is clear from the history that I have set out earlier and not disputed by Stubbs that the samples he had to evaluate in August 1992 were those developed by Birtles and Lovatt for Sandmaster to pass on to 3M. These samples had been based on Tivomelt 9625 as make adhesive because this softened over a relatively narrow range but by the meeting held between 3M, Evode and Henkel on 29 April 1993 Birtles had suggested 9617/11 as the better one. In fact, Stubbs admitted during cross-examination that by 29 April 1993 he knew of the three adhesives that had been tested at Sandmaster and also that they were using a water-based acrylic size layer.

53. As is clear from the history set out above Stubbs carried out further trials during the May/June/July 1993 period before the filing of the patent application. More than anything, as Stubbs admitted, these trials were to do with process parameters rather than suitable materials although there was some indication that one of the Henkel adhesives might be the best. His view of things was that he was really starting from first principles and not relying on any previous work conducted by himself or others.

54. Against this background, then, it is not surprising that in his evidence Stubbs said that he believed that the contents of the patent application were due entirely to his own endeavours and that since his original trials he had not received information from anyone which assisted him in the development of the invention. When asked by Mr Thorley about the assistance he had gained from the samples received from Sandmaster his opinion was that they were no better than what he had already done in 1989/90. However, when pressed he acknowledged that they provided access to adhesive which was better than the 3880 adhesive he had originally used and, even if the best was turning out to be the Henkel one, the specific examples in the patent application referred to the use of two adhesives from Henkel, three from Evode and one from 3M.

55. Following on from these views it is perhaps worth quoting the concluding questions and answers of Mr Thorley's cross-examination of Stubbs. These give a reasonable summary of how Stubbs saw the development of the invention claimed in the patent application as follows:-

- “Q. *So it is not correct that you received no information from anyone which assisted you in the development of your invention?*
- A. *It depends on how you define invention, I suppose.*
- Q. *Did you play any part in the discussion to include Mr Morris-Adams and Mr Hughes as inventors?*
- A. *Yes, I set up a meeting in order to establish the facts.*
- Q. *And the conclusion, as I understand it, was that the trials that had been carried out before you got involved did provide a measure of a springboard to your trials in the summer of 1993?*
- A. *They would have provided some additional background.*
- Q. *They saved you a good deal of work?*
- A. *I would not say they saved a great deal of work. The biggest amount of work was on the design experiments, and continued throughout that summer, even beyond the patent’s filing stage.*
- Q. *That was to get the machine that had been purchased jointly by you and Sandmaster to work properly?*
- A. *Essentially, yes.”*

56. I have already said that I believe this to be a case where the inventive concept resides in more than an idea and must encompass the means of realisation of the invention. This view, of course, does not mean that it necessarily follows that Birtles and Lovatt must be named as joint inventors because they had prepared samples that eventually were passed on to 3M. It is perfectly possible that as well as having the basic idea of using a polyurethane hot melt adhesive Stubbs himself could have then gone on to provide the means of realisation adequately and entirely independently of any contribution they might have made.

57. Was it the case then that in the preparation of the samples Evode were simply in the same place as Henkel as mere suppliers of suitable materials? I do not think so! By the time that Henkel were called in to the meeting on 29 April 1993 Stubbs was in the possession of working samples produced by Birtles and Lovatt. These samples were not perfect but were I believe to provide the springboard for Stubbs to carry out the subsequent development work. Mr Birss tried to reduce Evode’s contribution to that of adhesive suppliers, limited as he said to “the selection of potentially suitable adhesives after information of coating conditions had been given to them.” This in my view is not an accurate reflection of their contribution. They were not like Henkel, coming along much later with a list of adhesives that may prove of value, but had actually prepared samples using three different adhesives to prepare viable working samples. Before the provision of these samples Stubbs had done nothing beyond his early experiments to show that

his basic idea might be realised in terms of a suitable product. Now he could with confidence get on with some development work, not because he had been told by Henkel of a potentially suitable adhesive but because he had been provided with sufficiently good samples from Evode.

58. Several times Mr Birss made the point that for joint inventorship there had to be collaboration. In my earlier summary of his submissions I indicated that, at least in part, he saw the development of this invention as being independently pursued by the parties with no contribution by Evode that could possibly amount to collaboration with 3M. Again, I believe this flies in the face of the facts and completely ignores, in the period preceding May 1993, how little Stubbs had progressed beyond his initial idea. Even though both sides had independently started work on the invention Birtles and Lovatt had progressed towards the provision of working samples when Stubbs had done nothing of real value during 1992 and the early part of 1993. The provision of the samples in August 1992 and the information that 3M were able to pick up from the meeting on 29 April 1993 allowed Stubbs to come back in on the act and must, in my view, amount to collaboration between Evode and 3M. Only if 3M had got so far with the development of Stubbs' basic idea, or the samples and information were absolutely worthless so that they were completely ignored by 3M, could it possibly be said that there was no collaboration or that Evode had not contributed to the inventive concept.

59. It is true that the samples were not perfect and that Stubbs had to do a fair amount of development work but as pointed out by Mr Thorley sample 3 in the patent application was one that Stubbs was provided with by Evode and in the history of the development of the invention was not a small example being as it was a stimulus for the subsequent development work.

60. For completeness I must now turn to Mr Bowman's evidence which is an unchallenged account of how he saw events surrounding the drafting of the patent application and the subsequent meeting on 2 February 1994 to decide who was to be named as inventors. Eventually, in his letter dated 11 April 1994, from which I have already quoted, he comes to the conclusion that Stubbs is the main inventor because his efforts have resulted in the best mode for the production of the product. In addition, he decides that Morris-Adams and Hughes should also be named as inventors because they independently arrived at the general concept of utilising a hot-melt adhesive system and provided 3M with the results of their original trials, which may have assisted the further development of the invention.

61. Mr Bowman had already been told at the meeting in February 1994 that the contribution



of the Evode representatives present at the trials at Nordson in June 1992 was simply as suppliers of adhesive from their commercially available range. I have already made clear that I do not accept that argument which seems to me to lead on to the over-simplification of the situation expressed in Bowman's letter in terms of Morris-Adams and Hughes providing 3M with the results of their original trials. The results of those trials was not simply a list of adhesives which might prove to be useful but actual samples prepared by Birtles and Lovatt and providing the impetus and assistance for the further development of the invention.

62. On cross-examination Morris-Adams was honest enough to say that he could not remember what he had told Bowman about the contribution of the adhesive suppliers but that it was quite likely that he gave the impression that all they did was to select potentially useful adhesives. As to his own contribution he was positive that independently of Evode he had thought of the idea of trying out a hot melt adhesive to solve the problem of the solvent and environmental problems. However, he admitted that he was totally non-technical and in my view that must mean that he too could not have taken the idea forward by himself to encompass the means of realisation. There is no evidence from Mr Hughes but in Morris-Adams' evidence there is an indication that he thought neither of them could recollect beyond a broad outline anything that was going to be of particular use.

63. I have already dealt with the opinion that Evode were only adhesive suppliers and come to the conclusion that their contribution was more than that. Moving on from that I do not have to decide whether the contribution of Morris-Adams and Hughes justified them being mentioned as inventors but I must say that if they deserve to be so named the claim of Birtles and Lovatt in respect of their contribution seems to me to be much greater.

64. I therefore confirm that my decision is that Birtles and Lovatt are entitled to be named in accordance with section 13 of the Act amongst the co-inventors of the invention forming the subject of GB Patent No. 22821444.

65. The consequence of this, as I believe was agreed by both Counsel at the hearing, is that Evode, as the employer of Birtles and Lovatt are entitled under section 37(2) to be included as co-proprietors of the patent.

## European Patent 0638392

66. As I indicated earlier this application, which is the equivalent of the present GB application, is the subject of stayed proceedings before the European Patent Office until the outcome of these entitlement proceedings become known.

67. Article 62 of the European Patent Convention deals with the right of an inventor to be mentioned in the following terms:-

*“The inventor shall have the right, vis-à-vis the applicant for or proprietor of a European patent, to be mentioned as such before the European Patent Office.”*

And Rule 18 of the Regulations to the Convention states that:-

*“(1) The person designated as the inventor shall be mentioned as such in the published European patent application and the European patent specification.*

*(2) In the event of a third party filing with the European Patent Office a final decision whereby the applicant for or proprietor of a patent is required to designate him as the inventor, the provisions of paragraph (1) shall apply.”*

68. In view of my finding as to inventorship, and although I have no jurisdiction directly to order the addition of John Birtles' and Colin Lovatt's names to the European application, it is open to them to take the action stipulated in paragraph (2) of Rule 18, citing this decision.

69. There remains then under this heading the matter of how to deal with Evode's request to be named as joint proprietor now that I have found in their favour on this issue.

70. Section 12 of the Act relates to the determination of questions about entitlement to, inter alia, convention patents and under sub-section (3) says that in its application to European patents it is subject to section 82. In section 82(3) it is made clear that the whole section applies to a question arising before the grant of a European patent whether a person has a right to be granted a European patent or a share in any such patent. Sub-section (4) would appear to give me jurisdiction to determine any question to which the section applies by virtue, at least, of Evode's principal place of business being in the United Kingdom and sub-section (8) allows me to make an order under section 12.

71. In contrast then to the situation concerning the mention of inventor it would seem that I have jurisdiction to order that Evode Limited should be named as joint proprietor with Minnesota Mining & Manufacturing Company in EP Patent No. 0638392. The means by which this order may be effected would appear to be set out in Rule 20, paragraphs 1 and 2 as it applies to Rule 21, paragraph 1 of the Regulations to the Convention.

## **Orders**

72. However, both sections 37 and 12 give me wide discretion as to the orders I may make in a case such as this, eg instead of simple co-proprietorship I could order sole proprietorship to one or other party and at the same time give an irrevocable, royalty-free licence to the other party. Although neither counsel at the hearing suggested that they were thinking of anything other than straight-forward co-proprietorship, the issue was not fully argued.

73. Given the potentially restrictive provisions of section 36(3) in respect of the UK patent and perhaps equivalent provisions under the national laws of other member states of the EPC which may bite in the future on grant of the EP patent, I feel that it is only right for me to invite submissions from both parties as to any alternative orders that I might make which are consistent with my findings of joint proprietorship.

74. I allow the parties, therefore, six weeks from the date of this decision to file submissions in this regard if they so wish. This will allow them to discuss the situation, if they are so inclined, in the light of my findings of fact and, perhaps, to come to some mutually agreed solution as to the way forward. Failing receipt of such submissions or should the parties fail to agree, then I will make simple orders of co-proprietorship in respect of both the UK patent and the EP application.

## **Costs**

75. At the close of the hearing both counsel briefly addressed the issue of costs and, at my request, subsequently provided me with a skeleton of the real costs incurred by the parties for me to take notice of if I should decide to depart from the standard scale.

76. Clearly, by my decision, the applicants are deserving of an award of costs in their favour and I need to have regard to whether there was anything exceptional about this case which would lead to an award above or below the standard scale.

77. The Comptroller has a wide discretion to award costs under section 107 of the Act. Normally those costs will be in line with the standard scale which reflects the fact that in proceedings before the Comptroller costs are not intended to compensate parties for the expense to which they have been put but are to represent only a contribution to that expense. In exceptional circumstances however it may be possible to depart from the standard scale as recognised in *Rizla Ltd's Application* [1993] RPC 365.

78. In his closing submission Mr Thorley pointed to the seriousness and difficulty of the matters in issue, involving the representation by Counsel and the attendance of witnesses and thus it would be right for me to consider whether an award of costs in line with a High Court action scale might be more appropriate. On the other hand Mr Birss thought that in his experience that this was a fairly ordinary entitlement case and that the standard scale should apply. The only matter he asked me to bear in mind was that the applicants in the past few weeks had dropped their claim to being the sole inventors/proprietors and this had been a matter of extreme significance for his clients.

79. Having reviewed all the matters relating to the issues and conduct of the case I must say that I am of the same opinion as Mr Birss. This, in my experience, is a very typical entitlement case with no real factors involved which would mark it out for special treatment when it comes to considering costs. Both parties have proceeded through the various stages efficiently and from my assessment of the papers have been fair in their dealings with one another. There was a delay after the evidence rounds before the case proceeded to a hearing but this was with the agreement of both parties and, indeed, there was an attempt before the hearing to come to a mutually acceptable agreement.

80. The attendance of witnesses at entitlement hearings is of course commonplace given the nature of the proceedings and the appointment of Counsel is nothing out of the ordinary and is in the hands of the parties. All I would add is that I am grateful to both Counsel and witnesses for addressing the issues in a manner which allowed the case to be finished in a single day.

81. I have therefore come to the decision that costs in favour of the applicants should be awarded in line with the standard scale existing at the time the proceedings were commenced. I thus order that Minnesota Mining & Manufacturing Company pay to the applicants Evode Limited the sum of £1700 as a contribution to their costs.

## **Appeal**

82. Since this is not a matter of procedure, any appeal should be lodged within six weeks of this decision.

Dated this 10<sup>th</sup> Day of July 2000.

**G. M. BRIDGES**

Divisional Director acting for the Comptroller

**THE PATENT OFFICE**