

## **PATENTS ACT 1977**

### **IN THE MATTER OF**

a reference under Section 8(1)(a)

by Customflex Limited

and an application under Section 13(1)

by Michael Bullivant & David Paterson

in respect of Patent Application number GB 2,318,058 A

in the name of Ninian Spenceley Peckitt

## **DECISION**

### **Introduction**

- 1 Patent application no GB9619943.5 ("the patent application"), entitled "Improvements Relating to Prosthetic Implants", was filed on 25 September 1996 claiming no earlier priority date. It was published under section 16 of the Patents Act 1977 ("the Act") on 15 April 1998 with the publication number GB 2,318,058A. Ninian Spenceley Peckitt is named on Form 1/77 as sole applicant and inventor.
- 2 On 18 November 1996, Customflex Limited ("the referrer") filed a reference to the comptroller seeking: under section 8(1)(a) of the Act an order that it be named as joint applicant; under section 13(1) an order that Michael Bullivant and David Paterson, two directors of the referrer company, be named as joint inventors; and that the patent application continue as before. The reference is opposed by Mr Peckitt in a counterstatement filed on 4 February 1997. (In this decision I shall refer to Mr Peckitt as "the respondent" as this is a term which has been used by both parties.)
- 3 The usual evidence stages were completed, to most intents and purposes, in November 1997 with the filing of evidence-in-reply by Messrs Bullivant and Paterson, although some outstanding points concerning missing documents referred to in evidence were not settled until much later. Certain issues concerning admissibility of the evidence were considered at a preliminary hearing before me on 25 June 1998 and in subsequent written submissions. In a preliminary decision dated 15 September 1998, I found that parts of the referrer's evidence were not strictly in reply and directed that they be struck out. I refused an application to strike out the respondent's evidence which was alleged to be inadmissible hearsay.
- 4 The issue of cross-examination was also raised at the preliminary hearing. In my preliminary decision, I decided to allow cross-examination of witnesses, but to make the necessary order later on receipt of further information from the parties. In consequence on 27 October 1998, I ordered that the referrer present for cross-examination Michael Bullivant and David Paterson, and that the respondent present for cross-examination Ninian Spenceley Peckitt, Patrick Henry Somers, Graham Wotherspoon, Kenneth Lawson, Ian Wilkinson and Joan Harris. It was, however, agreed subsequently that cross-examination of Ian Wilkinson and Joan Harris would not be necessary.

- 5 At the substantive hearing, Mr Ashley Roughton, instructed by solicitors Morton Price, appeared as counsel for the referrer, and Mr James Love of solicitors Irwin Mitchell appeared for the respondent.

### **The Law**

- 6 The reference is brought under sections 8(1)(a) and 13(1) of the Act which read as follows:

#### **Section 8(1)**

At any time before a patent has been granted for an invention (whether or not an application has been made for it) -

- (a) any person may refer to the comptroller the question whether he is entitled to be granted (alone or with any other persons) a patent for that invention or has or would have any right in or under any patent so granted or any application for such a patent

#### **Section 13(1)**

The inventor or joint inventors of an invention shall have a right to be mentioned as such in any patent granted for the invention and shall also have a right to be so mentioned if possible in any published application for a patent for the invention and, if not so mentioned, a right to be so mentioned in accordance with rules in a prescribed document.

- 7 Since the hearing, the patent application has in fact proceeded to grant. By the effect of section 9 therefore, the present reference falls to be treated under section 37.
- 8 In his opening submission, Mr Roughton indicated that the referrer was claiming entitlement to the subject-matter of the invention via what he termed "the employee-inventorship route". In so doing, the referrer was relying on the following provisions of sections 7 and 39 of the Act:

#### **Section 7(2)**

A patent for an invention may be granted -

- (a) primarily to the inventor or joint inventors;
- (b) In preference to the foregoing, to any person or persons who, by virtue of any enactment or rule of law, or any foreign law or treaty or international convention, or by virtue of an enforceable term of any agreement entered into with the inventor before the making of the invention, was or were at the time of the making of the invention entitled to the whole of the property in it (other than equitable interests) in the United Kingdom;
- (c) .....

### **Section 39(1)**

Notwithstanding anything in any rule of law, an invention made by an employee shall, as between him and his employer, be taken to belong to his employer for the purposes of this Act and all other purposes if -

- (a) it was made in the course of the normal duties of the employee or in the course of duties falling outside his normal duties, but specifically assigned to him, and the circumstances in either case were such that an invention might reasonably be expected to result from the carrying out of his duties; or
- (b) the invention was made in the course of the duties of the employee and, at the time of making the invention, because of the nature of his duties and the particular responsibilities arising from the nature of his duties he had a special obligation to further the interests of the employer's undertaking.

9 Mr Roughton suggested that there was a two-stage process I need to go through: were Mr Bullivant and Mr Paterson co-inventors; if they were, I could then go on to consider entitlement. I broadly agree. He said he would seek to persuade me that Messrs Paterson and Bullivant were co-inventors in the sense that they provided an "intellectual contribution" to the subject-matter of claims 1-16 in the patent application, and that, as they were employees of Customflex Limited carrying out their normal duties at the relevant time, the referrer was entitled to become co-applicant. There was no dispute concerning the employer-employee relationship between the referrer and Messrs Paterson and Bullivant so the central question was whether they provided any intellectual contribution to the making of the invention. Mr Love made clear that he accepted that if Mr Bullivant or Mr Paterson were found to be a joint inventor with Mr Peckitt, then the referrer would be a joint applicant.

10 At an early stage in the hearing, Mr Roughton pointed out that the referrer alleged there was an agreement or at least "an accord" with Mr Peckitt to share the patent application equally. However, while it was an important part of the referrer's case that an agreement existed, he freely conceded that he was unable to prove either that this was entered into before the making of the invention or that it entitled the referrer to the whole of the property in the invention. Accordingly, the referrer could not rely directly on section 7(2)(b) in its claim for ownership and would not be trying to do so.

11 It follows then from section 7(2)(a) that entitlement in this case will flow principally from inventorship. The term "inventor" is defined in section 7(3) as follows:

### **Section 7(3)**

In this Act "inventor" in relation to an invention means the actual deviser of the invention and "joint inventor" shall be construed accordingly.

- 12 To assist me in construing this section, Mr Roughton took me to section 14(3) of the Act which reads:

**Section 14(3)**

The specification of an application shall disclose the invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the art.

- 13 If I understood Mr Roughton correctly on this point, his argument was that, in view of the requirement of section 14(3), the actual deviser of the invention can be construed as including a person or persons who enable an abstract idea to be performed by a person skilled in the art and thus to become patentable. In his contention, Messrs Paterson and Bullivant had the right to be named as inventors because they had made an intellectual contribution that had enabled Mr Peckitt's idea to be performed by a person skilled in the art, hence turning it from a mere concept into something capable of being patented. Mr Love countered that this was not the true test, and I have to say that it is not a common argument in inventorship proceedings. It seems to me that while a contribution to an invention which made that invention patentable could be indicative of joint inventorship, it was not conclusive; it would depend on the relative weights of the various contributions.
- 14 Both Mr Roughton and Mr Love referred me to several authorities during the course of their submissions and I have considered them all in detail. I might though at this point especially mention *Henry Brothers (Magherafelt) Ltd. v The Ministry of Defence and the Northern Ireland Office* [1997] RPC 693, in which Jacob J held that where the invention consists in the combination of elements, the inventor is the person who in substance made the combination which worked rather than one who merely contributed an element to a useless collection. Anticipating perhaps that this might lead me in the direction of a decision in favour of Mr Peckitt, Mr Roughton submitted that the circumstances in the present case were different. Although there were a number of steps involved in the present case, such as obtaining data, making of a model and using it, he said the first two steps were well known. Accordingly, in his contention, the invention was not a combination. The determination of inventorship depended simply on a matter of who provided the intellectual contribution to the third step.
- 15 Mr Love, on the other hand, argued that the intellectual contribution test was not a proper one to adopt when considering inventorship and, even if it were, the referrer had made no intellectual contribution to Mr Peckitt's idea. In his contention, the test was simply that set out in section 7(3), that is, who was the "actual deviser" of the invention. The authorities were not he felt particularly helpful as regards the meaning of "actual deviser" but there was some indirect guidance provided in section 43(3) which, in relation to sections 39 to 42, says that mere contribution of advice or other assistance is not relevant to the making of an invention. Section 43(3) reads:-

### Section 43(3)

In sections 39 to 42 above and this section, except so far as the context otherwise requires, references to the making of an invention by an employee are references to his making it alone or jointly with any other person, but do not include references to his merely contributing advice or other assistance in the making of an invention by another employee.

- 16 He also argued that the patentability of an invention was not a relevant consideration in entitlement proceedings. In this, he relied for support on the Hearing Officer's findings, upheld on appeal, in Viziball's Application [1988] RPC 213. The Hearing Officer says at page 217, "I regard the invention as that which was conceived by the applicant to be an invention at the time he filed his application whether that be a patentable invention or not ie the alleged invention. That the term invention in section 8(1)(a) has this meaning flows from a general reading of the Act". I should make clear that I fully accept Mr Love's point here.
- 17 Mr Love drew my attention to an alleged conflict of evidence as regards so-called "abutment studs" (I shall consider the patent application in detail later), Mr Bullivant saying that he designed them and Mr Peckitt claiming that they were entirely his. He referred me again to Viziball's Application, and to Brockhouse's Patent (No 2) O/100/85 and Alsop's Applications O/120/84 in support of his argument that, in a situation in which a conflict of evidence cannot be resolved, the referrer should fail. These authorities are well-known and I think it sufficient to say that they are fully reflected in the established practice that in entitlement and inventorship proceedings the onus is on the referrer to establish his claim on the balance of probabilities. If he fails to do that, entitlement and inventorship respectively rest with the applicant(s) and inventor(s) named in the patent application. I understood Mr Roughton to accept that this was the correct position on onus.
- 18 Mr Love went on to argue that, from a legal viewpoint, the facts of the case in Alsop's Applications were indistinguishable from the current one. In Alsop, the referrer was a general smith who had made for the applicant prototypes of items to which the patent applications related and was paid by the applicant for this work. In reaching his decision, the Hearing Officer made use of the well-known observation of Earle J in *Allen v Rawson* quoted in *William Rose Smith's Patent* 22 RPC 57, viz:

"I take the law to be that if a person has discovered an improved principle and employs engineers agents or other persons to assist him in carrying out that principle, and they in the course of experiments arising from that employment make valuable discoveries accessory to the main principle and tending to carry that out in a better manner, such improvements are the property of the inventor of the original improved principle and may be embodied in his patent; and if so embodied the patent is not avoided by evidence that the agent or servant made the suggestion of the subordinate improvement of the primary and improved principle."

- 19 Mr Love said this really summarises the legal principle he was trying to establish. After further reference to Smith's Patent, Mr Love argued that this principle does not amount to the "intellectual contribution" test Mr Roughton was advancing.
- 20 Mr Roughton, on the other hand, sought to persuade me that the present circumstances were factually different from those in Alsop's Applications and that, as the case was untested in the courts, the findings of the Hearing Officer had to be treated carefully. As regards Smith's Patent, he reminded me that the case was decided, not under the 1977 Act, but under a previous statute which he suggested dealt with entitlement very differently. He also pointed out that, in reaching his decision in Smith's Patent, Buckley J had apparently considered the referrer's contribution to be small. Mr Roughton suggested that a different conclusion might be possible in the present case in which, he contended, the contribution of the referrer was significant. He questioned whether it was possibly a matter of fact and degree.
- 21 I have considered all these submissions and authorities (and others drawn to my attention by the parties but not listed here) and they seem to me to require the following approach. Section 7(2) directs that a patent for an invention may be granted primarily to the inventor or joint inventors, whom section 7(3) identifies as the actual deviser(s) of the invention. However, in inventorship and entitlement proceedings "invention" is to be construed broadly, and is not limited to patentable inventions or the subject matter only of the claims. I need therefore to determine what are the inventions, in this broad sense, disclosed in the patent application. That will necessarily take account of whether the invention lies in individual features or in a combination of features. I must then decide on the evidence on the balance of probabilities who was the actual deviser of each invention. In doing so, I shall need to weigh different individuals' contributions and decide who contributed improved principles and who merely contributed subordinate accessory aspects. Put another way, I shall consider who made intellectual contributions of such weight as to constitute the main principles. Having concluded who were the inventor(s) of which invention(s), I shall need to consider whether those persons derive entitlement in those inventions under section 7(2)(a), or whether other matters come into play.
- 22 It is with this framework of law in mind that I turn now to consider the disclosure of the patent application.

### **The patent application**

- 23 The patent application is said to relate to an improved method of making prosthetic implants, methods of treatment incorporating the use of such implants, and to the prosthetic implants themselves. The disclosure is concerned with the making and fixing of prosthetic implants, particularly maxillofacial implants. Maxillofacial surgery may be necessary to deal with congenital defect, accidental damage or malignant tumours, and presents particular difficulties to achieve a result which is functional but also leaves the patient able for example to eat and speak, and gives a satisfactory aesthetic appearance. (Mr Peckitt's evidence, uncontested in this respect, explains that maxillofacial surgery covers surgery in the head and neck region with particular reference to the jaw and face.) It is said to be known to replace diseased or damaged

bone by grafting bone taken from elsewhere on the body, or by attaching a titanium armature to sound bone to act as a support for grafted bone cells. In either case it is then necessary to reform adjacent soft tissue over the implant. Alternatively, it is known to transfer a flap of bone and skin, eg from the forearm to the mouth, and reconnect the blood vessels in the flap to those in the head by microscopic surgery. This is said to achieve a functional but non-anatomical result.

24 Such conventional methods of reconstructive surgery are said to be time consuming, difficult and stressful to the patient. The object of the invention is to enable reconstructive surgery of this nature to be carried out much more rapidly, reducing stress on the patient, the load on the surgical team, and the cost.

25 Broadly speaking the particular description may be summarised briefly as follows. A method is followed in which an excised body part is replaced entirely by an implant secured to the sound adjacent bone structure. The implant, typically made of titanium, extends through a body surface such as skin or mucous membrane, for example in the palate or nasal cavity, no attempt being made to separate and then reposition the soft tissue. In one embodiment, the required prosthesis is made by CAT scanning to obtain a set of data defining the missing body part. The data are used in a stereolithographic procedure to create a three dimensional model and the model is used to develop and fit to size an implant which entirely replaces the body part. The implant may be attached to a bone plate, such as a Thorp plate, using rivets, and a C-shaped rivetting tool having an anvil and a compression member is disclosed specifically for this purpose. A mechanical attachment means or “connector block” for the releasable attachment of further prosthetic devices such as dentures is also disclosed.

26 The published patent application contains sixteen claims in all. Claim 1 reads as follows:

“1. A method of making a prosthetic implant comprising the steps of:  
obtaining a set of data defining the body parts of interest in three dimensions, using said set of data to create a three dimensional model of at least part of the body parts of interest, and  
using the three dimensional model to develop and fit to size a prosthetic implant which entirely replaces body parts which are missing or are to be excised from the patient.”

27 Independent claim 2 reads:

“2. A method of treating damaged, diseased or missing body parts which comprises excising damaged and/or diseased body parts and selected adjacent parts, and replacing excised and/or missing parts entirely by a prosthetic implant secured to the sound adjacent bone structures.”

Claims 3 to 7 and 11 to 14 are also method claims and are variously dependent on claims 1 or 2. Claim 8 concerns a prosthetic implant made by certain of those methods, as do claims 9 and 10 dependent on it.

28 Claim 15 is an independent claim, which has one appendant claim 16, and reads:

“15. A connector block for use in maxillofacial surgery, the connector block comprising a body and a post extending from the body, the post being shaped for selective attachment to dental prostheses, and the body being formed with passages for rivets for attachment to a surgical plate.”

### **Evidence and witnesses**

29 The written evidence for the referrer comprises two statutory declarations with exhibits from David Paterson and two statutory declarations with exhibits from Michael Bullivant. Mr Paterson and Mr Bullivant are co-founders and directors of Customflex Limited. I should make quite clear that my consideration of the written evidence has wholly excluded that part of Mr Bullivant's evidence in reply which was struck out following my preliminary decision.

30 The written evidence for the respondent comprises statutory declarations from Ninian Spenceley Peckitt, who is a consultant oral and maxillofacial surgeon at Doncaster Royal Infirmary; Patrick Henry Somers, a solicitor and a partner in the firm of Irwin Mitchell; Graham Wotherspoon, a patent agent in the firm of Murgitroyd & Company; Kenneth Lawson, a health care manager employed by the Royal Bank of Scotland; Ian Wilkinson, a medical applications manager employed by Styles Precision Components Limited; Joan Harris, a theatre sister at Doncaster Royal Infirmary; and Tanya Karen Forret, an assistant solicitor employed by Irwin Mitchell. The statutory declarations of Mr Peckitt, Mr Wotherspoon, and Ms Forret are accompanied by exhibits.

31 Six of the nine individuals who filed written evidence were cross-examined at the hearing, but before turning to that, I think it would be helpful to set the scene by recounting, if only in outline drawn from the written evidence, each side's alleged and in various respects disputed account of events.

### **The referrer's account**

32 The referrer company was set up in 1990 by Mr Paterson and Mr Bullivant to design, develop, manufacture and sell components and equipment in relation to the orthopaedic implant industry. Mr Paterson concentrated on sales and marketing, Mr Bullivant on design, development and manufacture. The referrer provides a service to hospitals and surgeons supplying orthopaedic implants. It is expert in the design and manufacture of tumour prostheses in many areas of the skeleton and has extensive knowledge of biocompatibility of implants.

33 In October 1995 the referrer was approached by the respondent, Mr Peckitt, with a view to developing an idea relating to the design and manufacture of maxillofacial implants. He brought with him several model skulls, which had been made using stereolithography, but no sketches or drawings or written instructions. The models demonstrated problems that he wished to solve using implants. However, his idea was to use some large non-specific implant, not a specific fitted implant which the referrer suggested. The respondent had no input to the notion of taking the three



dimensional co-ordinates of the body part and fitting them into a cutting machine to produce a specific implant, an extension of technological processes already used by the referrer. The respondent realised that current surgical techniques could be improved, and asked the referrer how it could do so.

34 One of the models, the first to be tackled, concerned the creation of an implant for a lady with a tumour in her hard palate. The referrer took that model and created an implant which would fill the deformity and reconstruct the patient's facial geometry. This required the referrer to make sketches, drawings, and computer programmes to make the rough implant. This was then shown to the respondent who had an input to design changes to improve its fit and ensure it was surgically useful. Various documents are exhibited by Mr Paterson in support. Bone cutting jigs were also developed by the referrer.

35 After the success of the first implant, other work followed and discussion turned to the creation of a formal business agreement and patent rights. On or about 29 May 1996, Mr Paterson met Mr Peckitt and a patent agent in Glasgow. The question of sharing patenting costs was raised. It was understood by both parties that any patent would be jointly owned, yet Mr Paterson acknowledges there is no written evidence of this. In September 1996 a patent application was filed by the respondent alone, although he indicated that the referrer would be added to it. This also was mentioned at a meeting attended by a Mr Mayer. At some point, the respondent offered the referrer a licence, but this was rejected because it took no account of the referrer's inventive input. Relations between the parties soon broke down.

### **The respondent's account**

36 The respondent, Mr Peckitt, is a Consultant Oral and Maxillofacial Surgeon and has been working in this field since 1984, although he is also highly skilled in a range of medical and dental disciplines. It was while performing an operation in July 1995 that his thoughts for the present invention came together. He had made a custom designed implant from titanium mesh but a lot of effort was needed to reform adjacent soft tissue over the implant. He came up with the idea of using solid titanium implants which would not need covering with soft tissue. To manufacture these implants, the patient's skull could be scanned to get a three dimensional image, and the data gathered used in stereolithography techniques to create a three dimensional model of the body parts of interest. This model could be used to design custom implants which would fit precisely, and to produce cutting jigs to guide the surgeon's saw.

37 The first case in which the respondent planned to use this new system was to replace a lady's nose. It would need to be sculpted from solid titanium and a manufacturer who had CNC equipment was needed. He approached the referrer in October 1995. At this stage, the invention was completely formulated in his head, and the referrer's only role was to make the nose implant. The referrer had experience not of maxillofacial surgery, but of manufacturing customised knee implants and hips; nor were they experienced with stereolithography to make implants. They could not have

contributed to the invention as they had no detailed knowledge of the problems and complications of maxillofacial surgical techniques.

- 38 The referrer company manufactured to the respondent's specification. He formulated the whole procedure from explaining the techniques involved to how they would be modified using computer software. The design was achieved by the respondent instructing a technician (not from the referrer) manipulating a computer image at Doncaster Infirmary. The respondent then completed a long list of essential tasks in specifying the design. The referrer's role was purely to CNC-engineer the nose. The respondent designed-in various features to make the nose a better fit and functionally more effective. During design discussions with the referrer, the respondent would specify the design and the referrer would sketch it under instruction. The referrer's input was purely concerned with manufacturing techniques, not design from the point of view of surgery or of the invention.
- 39 Very little was committed to paper for good reasons. The respondent had no research or development records because his idea was a simple one, albeit that it had taken years of experience to get to the stage where he could make the mental inventive leap. The only records were confidential clinical notes and stereolithographic models. There are very few drawings and pictures because the specific dimensions of the implants are governed by the models, as is the shape. Sketches made under the respondent's direction by the referrer embody the respondent's input. Thus, the drawings exhibited by Mr Paterson, although drawn by the referrer, actually represent the respondent's directions.
- 40 The respondent denies categorically that he promised to make anyone a joint inventor; he made the invention before he went to the referrer and would never have suggested they would jointly own it. There was no detailed reference to joint inventorship or ownership at a meeting of Mr Peckitt, his patent agent and Mr Paterson on 26 July 1996. Mr Peckitt was keen to build up trust with them and to reward their input he intended to share the benefit of his patent in a suitable way. He was very particular no deal would be reached without his solicitors. A taped telephone conversation with Mr Bullivant includes loose references to "sharing", but not joint ownership. The respondent never spoke about rights being "jointly owned", but may have talked about working jointly on cases. The referrer has been paid for its services. A generous manufacturing agreement was rejected by the referrer. The referrer was kept in touch with the progress of the patent application process out of courtesy.

### **Oral evidence and cross-examination**

- 41 It is against that background that I shall now turn to summarise the oral evidence of the witnesses who appeared before me at the hearing, and indicate the impression each made upon me under cross-examination. I shall take them in the order in which they appeared; all except Mr Paterson and Mr Bullivant are witnesses for the respondent.
- 42 **Kenneth Lawson** explained that his role as a health-care manager was to arrange finance for doctors' and dentists' projects. He struck me as an honest man who,

while doing his best to answer fully the questions put to him, was often unable to recall the detail of relevant events which occurred about three years before. Under cross-examination by Mr Roughton, he confirmed he was involved with the parties during a very short period around July 1996 during which time he attended a meeting on the premises of Customflex Limited. At that meeting, Mr Peckitt gave a presentation about a new surgical implant. However, Mr Lawson admitted he was unable to remember what was on a video shown during the presentation. Questioned by Mr Roughton about his written evidence indicating his impression that Mr Peckitt was the inventor providing details of his invention to Customflex Limited, he said he had developed that impression while talking to Mr Peckitt at the meeting. However, he admitted he knew nothing at that stage about the relationship between the parties or the technical abilities of Customflex Limited. The impression he had gained was therefore simply the personal opinion of a layman.

43 The nub here, it seems to me, is that Mr Lawson's recollection was uncertain and his evidence heavily dependent on what Mr Peckitt had told him. On that basis, what it adds to that of Mr Peckitt is limited.

44 I found **Patrick Henry Somers**, a solicitor with Irwin Mitchell but not an IP specialist, to be a very thoughtful witness who took great care to answer questions put to him by Mr Roughton in as accurate and precise a manner as possible. He said he first met Mr Peckitt in June 1996 at the premises of Customflex Limited. Mr Peckitt had come up with an idea which he wanted to talk about and it was decided that the best thing would be to see it in operation in the engineers' workshop. Mr Somers confirmed his written evidence to the effect that Mr Peckitt had always had good intentions towards Customflex Limited until the company started pushing for inclusion in the patent application in September 1996. The breakdown of the relationship was clearly evident from correspondence which passed between the parties' lawyers during the period 16 to 25 October 1996, copies of which are exhibited in Mr Paterson's evidence at DP5. Mr Roughton referred Mr Somers in particular to a letter he had sent to Customflex Limited's solicitor on 16 October 1996 proposing terms for either an exclusive licence or joint "participation" in the patent. The second paragraph of that letter begins "I have now had the opportunity to discuss this matter in detail with my client and confirm that he wishes to reflect the time and effort contributed by Customflex in the development of his concept". When questioned, Mr Somers said that he did not know what that time and effort amounted to, and hence what the referrer's contribution to the intellectual process was. For this reason, he had put inverted commas around the word "participation" in his letter.

45 **David Paterson** also proved to be an honest, careful and thoughtful witness although his relative lack of technical knowledge was reflected to some extent in his answers to questions of a technical nature. At times, I found his responses rather vague and unspecific. Under cross-examination by Mr Love, he said that before meeting Mr Peckitt he had 23 years experience in the orthopaedic business but no previous experience of maxillofacial surgery. By his own admission he was not an engineer, having come up through the sales and marketing route. He generally relied on his colleague, Mr Bullivant, on technical aspects. Having said that, from his testimony it was clear to me that he had acquired some limited technical knowledge from his years working in the orthopaedic

area. He spoke, for example, of instances when he had helped out as a technician in the operating theatre.

- 46 Mr Love took Mr Paterson through that part of his written evidence concerning a meeting with Mr Peckitt in October 1995. He said Mr Peckitt had come with an idea to enable reconstruction of a patient's nose. Customflex Limited were involved in the manufacture of custom-made orthopaedic implants and were known to the Health Trust in Doncaster. Mr Paterson accepted that Mr Peckitt had brought a model and had suggested using stereolithographic techniques, CNC engineering and titanium as the material for an implant. Mr Paterson said to Mr Love that he was not directly involved in the design concepts, so there was not very much he could say about the design process. This is a very important admission, it seems to me, both for the weight that can be attached to anything uncorroborated which Mr Paterson may say about the technical development, and also for his potential to be regarded as a joint inventor. He conducted some market research which showed that there was a commercial market for this type of technology but again he admitted he was not directly involved in the design process and had limited technical input. Nonetheless, he considered he had contributed to the invention in a marketing role and that Customflex Limited had made a design input, although he was not very specific about what that input was. Questioned more closely about inventive contribution in the context of the patent application claims, he said Customflex Limited's input was the design and creation of the implant from Mr Peckitt's model, and the creation of a dental connector block and a rivetting tool.
- 47 Mr Paterson disagreed with written evidence to the effect that Mr Peckitt was having to meet with Customflex Limited all the time to specify precisely how he wanted the implant and associated jigs manufactured. He said there was some significant collaboration, but not to the detailed extent suggested by Mr Peckitt. He rejected a suggestion from Mr Love that photographs supplied by Mr Peckitt provided enough information for Customflex Limited to produce the required implant. He said Customflex Limited was left alone to use its design expertise to create a suitable implant from the three dimensional model. Later, under re-examination by Mr Roughton, he said that no detailed sketches of what was required were produced by Mr Peckitt.
- 48 Mr Love then questioned Mr Paterson about a meeting that took place at the premises of Murgitroyd & Company between himself and Messrs Peckitt and Wotherspoon. (Mr Paterson states this as taking place "on or about 29 May 1996" in his first statutory declaration, but Mr Wotherspoon's evidence is that it was on 26 July 1996; nothing turns on this point though.) Mr Paterson said he was unable to recall what was said as the meeting occurred nearly three years before. Nonetheless, he remembered it was decided that there might be something patentable and sharing the costs of any patent was mentioned. In his recollection, there was no reference to who should be named as inventor but he said there was an understanding between the parties that the patent would be jointly owned, citing in support a later meeting with venture capitalists at which Mr Peckitt allegedly said "We're sharing the patent".
- 49 **Graham Wotherspoon**, a patent agent at Murgitroyd & Co, took great pains to give as accurate an account of what transpired as was possible in the circumstances, but again the three year lapse clouded his memory somewhat. Questioned by Mr

Roughton about the meeting at Murgitroyd & Company on 26 July 1996, he said Mr Somers had wanted him to learn the technology and advise whether there was scope for a patent application to be filed. Mr Wotherspoon admitted that from his standpoint there was nothing to confirm one way or the other whether Mr Peckitt was the person entitled to apply for a patent. However, he had drafted the application based largely on information from Mr Peckitt who had explained in great detail the background to the invention. As with Mr Lawson, it seems to me that the dependence of Mr Wotherspoon's evidence on what Mr Peckitt told him diminishes its corroborative weight.

- 50 In his position as a director of Customflex Limited and with many years relevant technical experience to his name, the evidence of **Michael Bullivant** clearly plays a particularly significant part in these proceedings. Having spent his early career in the aerospace industry, he moved into orthopaedic engineering in 1980 where he became familiar with the design and manufacture of titanium implants such as hip and knee joints. He also gained some experience of maxillofacial reconstruction. He answered the questions put to him with confidence and, I believe, honesty, often stressing that he was doing so as a generic technical expert, rather than as a medical or surgical specialist. It was evident from his responses that he was knowledgeable in the field of orthopaedic design and engineering generally, and had been able, more recently, to apply some of that expertise into the highly specialized field of maxillofacial implants.
- 51 Cross-examined by Mr Love about the meeting between Mr Peckitt and Customflex Limited in October 1995, Mr Bullivant said Mr Peckitt had brought with him no more than the basic idea of using computer scanning technology and a stereolithographic modelling technique to produce a model for reconstructing facial features. Mr Bullivant said it was already known to use these techniques in the manufacture of other, non-medical products, such as casings for electric hand drills, though Customflex Limited had not previously used stereolithographic modelling. Thus, he indicated that he was aware of stereolithographic models but not experienced in their use in the medical aspect. He explained that early orthopaedic implants had failed because engineers had simply tried to duplicate exactly the missing or excised body part without sufficient regard to the stresses involved and the required wear characteristics of the prosthesis.
- 52 Mr Peckitt had brought a facial model of the patient showing what surgical cuts were to be made, and had discussed the associated problems and what clinical solutions were required. Mr Bullivant said Customflex Limited were merely provided with the clinical parameters, for example, the extent of bone removal necessary, the position of the cuts and the location of nerves to be avoided when fixing the implant, and in his contention, this information would not define the required implant. Mr Bullivant said it was he who would "design and invent" the required prosthesis and its fixation, bearing in mind manufacturing problems, facial loads, skin cover and thickness and so on.
- 53 In answer to Mr Love's question regarding how he would know about loads and skin cover, Mr Bullivant said there were recognised text books on the subject. He already had some and others were recommended by Mr Peckitt. He rejected Mr Love's suggestion that it would take many years of training to be able to decide such matters and that all the information came from Mr Peckitt. Having said that, he went out of his way not to detract in any way from Mr Peckitt's acknowledged expertise in the field. Upon re-examination

by Mr Roughton, Mr Bullivant said that what seemed fairly straightforward to a surgeon could actually be quite a complicated engineering matter. He would try to steer surgeons away from the pitfall of copying body parts and trying to use them.

- 54 Mr Love then took Mr Bullivant through the patent application paragraph by paragraph to determine what he considered Customflex Limited had contributed. In this decision, I have mentioned what I regard as the main points to emerge from this phase of the cross-examination, but I should also note beyond those there were large parts of the patent application to which Mr Bullivant admitted there had been no input from the referrer.
- 55 When questioned about the paragraph beginning at line 32 on page 2 which sets out a method said to be according to one aspect of the invention, he said that it described exactly what Mr Peckitt had brought to Customflex Limited. That method includes the steps of obtaining three dimensional data defining the body part of interest, creating a three dimensional model from the data and using the model to develop and fit to size an implant which entirely replaces the body part. Later on in his oral evidence, Mr Bullivant contradicted what he had said earlier, insisting that Mr Peckitt had not brought the step of using the model to develop and fit to size an implant because he had not identified what the implant would look like or how it would be fixed. However, when pressed, he agreed that Mr Peckitt had brought the idea, if not the technique, of using the model to develop and fit to size an implant which entirely replaces the body part.
- 56 The opening sentence of the paragraph beginning at line 10 on page 3 of the patent application is said to define another aspect of the invention, essentially a method of treating damaged, diseased or missing body parts comprising excising the body parts and replacing them entirely by an implant secured to the sound adjacent bone structure. Questioned specifically about this sentence, Mr Bullivant said he had been doing that since 1980, though not with a stereolithographic model. The following sentence sets out a preferred form of the method in which both bone and soft tissue are replaced by a single prosthetic implant made of a material onto the surface of which soft tissue is capable of growing. Mr Bullivant said Customflex Limited had never replaced soft tissue.
- 57 Regarding the paragraph beginning at line 23 on page 4 of the patent application, which is said to be a further aspect of the invention, Mr Bullivant confirmed Mr Paterson's view that Customflex Limited provided inventive input into the dental connector block. He explained that it was known to screw directly into bone a product having a peg onto which a denture could be fixed. For heavy reconstruction of bone, it was also known to use a bone plate system at the subcutaneous level and so incapable of providing denture fixation. He said Customflex Limited had come up with the connector block invention which could be fitted to the bone plate system to provide for denture fixation.
- 58 If I understood Mr Love's line of questioning correctly on this issue, he was suggesting that, in essence, the connector block and its fixing means amounted to nothing more than an assembly of known parts either to be found in standard text books and catalogues on the subject or introduced to Customflex Limited by Mr Peckitt. He was also suggesting that it was Mr Peckitt who had designed the

connector block and the method of fixing it. However, despite repeated questioning on this point, Mr Bullivant was insistent that the connector block was a completely new product designed by Customflex Limited. While admitting that some very complicated procedures were involved in designing connector blocks for patients, he maintained that it was not necessary to be an expert in dentistry in order to do so. As an engineer in orthopaedics, he had been able to master the techniques required. When it was put to him by Mr Love, Mr Bullivant admitted that, as stated in paragraph 36 of Mr Paterson's statutory declaration, it seemed odd that Mr Peckitt had absolutely no input to the connector block product bearing in mind his qualifications and skill in dentistry. Nonetheless, he insisted that this was indeed the case.

- 59 Mr Love's questioning of Mr Bullivant seemed to be aimed partly at attempting to demonstrate weaknesses in his understanding of maxillofacial reconstruction techniques. He questioned Mr Bullivant at length on Branemark abutments, Thorp plates, osseointegration, fixation methods and jaw loads. He also tested Mr Bullivant's understanding of the sketches and notes exhibited at NSP3 of Mr Peckitt's statutory declaration, used in the design of facial implants. Under quite intense questioning, Mr Bullivant remained calm and I found his testimony to be both consistent and persuasive of his technical knowledge in the orthopaedic engineering field, though not expert in what I might call detailed medical matters.
- 60 Mr Love also turned to the transcript of a telephone conversation between Messrs Bullivant and Peckitt taped without the latter's knowledge on 22 October 1996 and exhibited to Mr Bullivant's first statutory declaration at MB2. He referred in particular to the passage where Mr Peckitt says "Well I mean I'd offered to share the patent and we'd sent the document about how that could be shared and David just binned it". Mr Bullivant confirmed that the document Mr Peckitt was talking about was the letter of 16 October 1996 proposing terms for either an exclusive licence or for joint "participation" in the patent. Mr Bullivant considered the proposals to be for commercial rights in the patent but, in his understanding, they did not constitute an offer to share the patent. He denied he had engineered the conversation knowing it was being taped as potential evidence. He confirmed paragraph 23 of Mr Paterson's first statutory declaration to the effect that Mr Peckitt had said he would speak to Mr Somers and have the referrer's name added to the patent application. Under re-examination Mr Roughton questioned Mr Bullivant about an entry in his diary exhibited to his second statutory declaration as MB4. Mr Bullivant confirmed that the entry for 26 September 1996, one day after the filing date of the patent application, included the following: "I spoke to Nige regarding addition to the patent. He confirmed he had instructed his lawyers to put us on". He explained that "Nige" was a friendly nickname for Mr Peckitt.
- 61 Finally, Mr Love questioned Mr Bullivant about confidentiality agreements which, according to paragraph 6 of Mr Somers' statutory declaration, Mr Bullivant had asked Mr Somers to send to him to protect Mr Peckitt's rights in circumstances where Customflex Limited was talking to third parties. These are exhibited to Ms Forret's first statutory declaration as TKF1. Mr Love pointed out that the agreements said that Mr Peckitt is "the owner" of a system for making custom made implants for surgical purposes and also some equipment for use in the related surgical procedure ("the System"), and is the owner of confidential information relating to the System

and of intellectual property rights in it. In his responses, Mr Bullivant initially appeared to agree with Mr Love that he had used the agreements in dealings with third parties although he maintained that he had disagreed with their content as regards ownership. Later he said he had only used Customflex Limited's own confidentiality agreements.

62 During re-examination, Mr Roughton asked Mr Bullivant about the rivetting tool described in the patent application with reference to Figures 6A and 6B. Mr Bullivant said that the tool was invented wholly by himself some time after October 1995.

63 The evidence of **Ninian Spenceley Peckitt** is also crucial to these proceedings. A highly qualified and experienced Consultant Oral and Maxillofacial Surgeon, he struck me as a man of high integrity consistent with the pre-eminent position he has attained in his chosen field. His specialist technical knowledge is quite beyond question. He was precise, indeed meticulous, in the delivery of his testimony. I think it is fair to say that his manner was dismissive when speaking of the technical competence of the referrer outside a narrow engineering field.

64 Cross-examined by Mr Roughton, Mr Peckitt said that there were problems associated with removal of facial reconstruction plates such as Thorp plates because of osseointegration. The "mental leap" in his invention was the realisation that, in order to reduce the problem, the surface of titanium implants could be left deliberately exposed inside the body, for example inside the cavity of the mouth, the nose or the eye socket. He said that "that is what the implant is about ... it is not about anything else other than the notion that you can leave these giant implants exposed". He said an engineer could not have come up with such an invention. Later, he also said that the phrase "anatomical facsimiles manufactured using computer engineering techniques" describes the main thrust of (I take it the rest of) the invention. From his responses to further questions on the subject, it became clear that he was somewhat dismissive of the alleged knowledge and expertise of Customflex Limited in the field. For example, he said the company had never heard of a Thorp plate, which was standard in maxillofacial surgery, until he introduced them to it. They had merely manufactured the implants in the same way that a dental technician manufactures a denture. Mr Roughton took Mr Peckitt through parts of his statutory declaration running from paragraphs 15 to 36, which he alleged showed that, in Mr Peckitt's opinion, the company's abilities were limited. Mr Peckitt did, however, confirm that he was grateful to the referrer for all the hard work they put in. But he later said it was a manufacturing contribution, not an intellectual contribution.

65 Mr Peckitt said he had gained some engineering knowledge from his medical training and as a result of his maxillofacial work. Six months to a year before he approached Customflex Limited, he had himself manufactured a swaged titanium mesh implant and used a stereolithographic model to plan the surgical cuts necessary. In passing, I would note that this seems indicative of some engineering skill and knowledge on Mr Peckitt's part. He then thought of using Customflex Limited to save him having to manufacture implants himself. He had instructed his lawyers, he said under cross-examination, "to offer them a share - a share, not "to share" but "a share" - of the patent process" to reward them for their hard work, but they were informed that this would be subject to his lawyers working out an appropriate deal. He dismissed Mr



Roughton's suggestion that Customflex Limited had overcome substantial technical difficulties to make the idea workable. As he put it, "the engineers have the hardest job in manufacturing what I want ...but that is not what the patent is about."

- 66 Asked about the taped telephone conversation, Mr Peckitt confirmed that he had said "I always said along the line that I wanted to offer you a share...", but he insisted that the comment was taken out of context and, in any case, the whole conversation had been engineered to compromise his position. Mr Roughton noted that, according to paragraph 54 of Mr Peckitt's statutory declaration, Customflex Limited had been paid for their services. He suggested that Mr Peckitt had offered them a share in the patent as something extra to reflect their input in relation to their enabling his invention to be made. He further suggested that Mr Peckitt had always intended to share the patent with Customflex Limited as joint owners, but when he went to his lawyers, Mr Somers pointed out the difficulties associated with joint ownership and Mr Peckitt changed his mind. As Mr Peckitt had put it during the phone conversation, "joint patent ownership is fraught with problems". Mr Peckitt refused to accept this version of events. He said he had always been honest and straightforward with Customflex Limited and would never proceed without involving his lawyers, although Mr Roughton pointed out that Mr Peckitt's relationship with Customflex Limited began some six months before Mr Peckitt first met Mr Somers. When Mr Roughton put it to him that in the telephone conversation he had said he would look after the referrer's interests, Mr Peckitt said this meant his lawyers coming up with a deal; they did but that deal was rejected by the referrer.
- 67 Turning to the rivetting tool, Mr Roughton asked whether this was anything to do with Mr Peckitt. Mr Peckitt explained that he had said that the implants had to be rivetted to the reconstruction plates, but the description of the tool was included in the patent application in error. There was no intention to claim any rights in the tool.

### **The "agreement"**

- 68 Before moving on to consider the inventions in issue, I feel it would be helpful at this point, having reviewed the evidence, to deal with the alleged agreement or understanding between the respondent and the referrer. Although Mr Roughton made clear he was not relying on enforcing any agreement under section 7(2)(b), he was suggesting that a form of agreement had existed and that its existence indicated that the respondent had acknowledged the referrer's intellectual contribution to the inventions. The respondent denies there was ever any agreement to give joint ownership or inventorship rights to the referrer or its employees, but admits that it was his intention "to share in a suitable way the benefit [he] would obtain by exploiting the patent". At least in his cross-examination, Mr Love seemed to be suggesting that confidentiality agreements, such as exhibited at TKF1, indicated an acknowledgement by the referrer of the respondent's sole ownership of patent rights. However, the circumstances surrounding the use of those confidentiality agreements is not sufficiently clear to assist me in deciding whether any agreement on ownership of the patent rights existed.

- 69 The evidence on the alleged ownership agreement or understanding is inconclusive. Mr Paterson and Mr Bullivant allege that there was a clear agreement or understanding that they would be named as co-inventors and the referrer joint applicant in any patent application. When the patent application was filed, they say that the referrer undertook to have them added to it, but that did not happen. Mr Paterson acknowledges, however, in his first declaration that there is no written evidence of an agreement for joint ownership. He does, however, exhibit at DP2 a letter dated 24 October 1996 from a Mr Mayer which states that at a meeting he, Mr Peckitt and Mr Paterson attended “Mr Peckitt outlined to all those present that the patent to be put in place was to be shared between himself and Customflex Limited”.
- 70 In his oral evidence, Mr Peckitt made clear that his intention was to offer the referrer “a share” of the patent process, but not “to share” the patent with them. The telephone conversation between Mr Bullivant and Mr Peckitt which was taped without Mr Peckitt’s knowledge is not inconsistent with that position, nor are the terms of Mr Mayer’s letter. There is also Mr Somers’ letter of 16 October 1996 exhibited at DP5, which floats two proposals, an exclusive licence or “joint participation in the patent”. Mr Somers’ oral evidence under cross-examination by Mr Roughton did not shed a great deal more light on what underlay this letter. It seems to me to be written in terms which offer to share benefit in or under the patent, but which do not acknowledge that joint rights in the patent had already been agreed, beyond confirming that the respondent “wishes to reflect the time and effort contributed by Customflex in the development of his concept”. On this basis I do not believe the letter of 16 October is necessarily inconsistent with the respondent’s position, or determinative of the question of what agreement or understanding may have existed before it was written.
- 71 The use of the word “share” is I believe crucial, as is the fact that it can take a range of meanings; what one person implies in saying it may not be what another infers on hearing it. It seems to me that Mr Peckitt intended that the referrer should receive some share in the benefits of work they were doing. Mr Bullivant and Mr Paterson may have understood that he was offering something more specific, but on the balance of probabilities, I do not believe the evidence demonstrates that he was. I am not therefore persuaded that the evidence shows that an agreement over joint ownership or inventorship in the patent application existed. Mr Roughton’s argument that the existence of an agreement or understanding, such as it may have been, indicated that the respondent recognised an intellectual contribution from the referrer is therefore tenuous on two counts: first as to the strength and specificity of the understanding, and second as to whether the contribution the respondent recognised was “intellectual”, that is inventive, or merely ancillary. Thus it seems to me that the persuasive value of Mr Roughton’s argument based on any agreement is very limited.

### **The inventions in issue**

- 72 As I have already noted, in inventorship and entitlement proceedings, it is well-established that the term "invention" is used in its broadest sense of that which has been devised. Thus, in identifying the inventions or inventive concepts in issue, I have

to consider what has been disclosed in the specification of the patent application as a whole without particular regard to what is claimed. Moreover, the patentability of any of the inventions I identify is of no relevance.

- 73 I have already reviewed the content of the patent application as filed. It follows from that review, and in the light of the evidence that has been given, that there are in my view four distinct concepts or inventions disclosed. I would express them in broad terms of the following combinations of features:

**Invention (i)**

a method of treating damaged, diseased or missing body parts comprising excising the body parts and replacing them entirely by an implant secured to the sound adjacent bone structure in such a way that the implant extends through a body surface with no attempt being made to separate and then reposition the soft tissue. This invention extends to an implant made by the method;

**Invention (ii)**

a method which involves obtaining a set of data defining the body parts of interest in three dimensions, using it to create a three dimensional model and using the model to develop and fit to size an implant which entirely replaces the body parts in such a way that the implant extends through a body surface with no attempt being made to separate and then reposition the soft tissue. This invention also extends to an implant made by the method;

**Invention (iii)**

a connector block comprising a body formed with passages for rivetting to a surgical plate, and with a post for attachment to a dental prosthesis; and

**Invention (iv)**

a surgical rivetting tool comprising a C-shaped frame having a base and two limbs extending from the base, one limb carrying an anvil and the other carrying a compression member movable toward and away from the anvil.

- 74 Inventions (i) and (ii) broadly correspond with what Mr Peckitt in his oral evidence regarded as the main inventions. Inventions (iii) and (iv) correspond more with what Mr Bullivant has said. However, I should make clear that this formulation is my own view formed in the light of the evidence; neither Mr Love nor Mr Roughton spelled out as such what their sides felt were the inventions or concepts in issue.

**Inventorship**

- 75 I need now to consider on the evidence by whom the inventive concepts I have identified were devised. Before getting into the detail of each, it seems clear to me on his own admission that Mr Paterson did not have any significant part to play in the design process; his role was in marketing and sales. On this basis, I cannot see that he can have had any inventive involvement in the concepts disclosed in the patent application. I therefore discount him from any claim to inventorship. I would also

recall that I took note (in paragraph 65 above) that Mr Peckitt possesses a certain level of engineering skill and knowledge, and add that he cannot therefore simply be discounted from having contributed to engineering aspects of the inventive concepts.

### **Invention (i)**

- 76 As I have noted, during cross-examination Mr Love took Mr Bullivant through the patent specification in some detail and questioned him specifically about the opening sentence of the paragraph beginning at line 10 on page 3. Reduced to its essentials, this sentence defines a method of treating damaged, diseased or missing body parts comprising excising the body parts and replacing them entirely by an implant secured to the sound adjacent bone structure. Mr Bullivant clearly considered that this method was a known technique. He said "I have been doing that since 1980". I believe Mr Bullivant's response demonstrates that he had not fully understood the intended meaning of the expression "replacing them entirely by an implant", taken in context.
- 77 In his testimony, Mr Peckitt said that the "mental leap" in his invention was the realisation that, in order to reduce the problem of osseointegration, the surface of titanium implants could be left deliberately exposed inside the body. When read in the context of the disclosure of the patent application taken as a whole, it is clear that the expression "replacing them entirely by an implant" is intended to mean exactly that. For example, beginning at line 27 on page 6, it is stated: "An important feature of the present invention is that the prosthesis is of a material, typically titanium, which is compatible with passing through the surface of soft tissue without permitting the ingress of infection along the exposed surface of the implant. This allows the prosthesis to be a complete replacement for the excised parts". Elsewhere, the specification explains that the implant extends through a body surface with no attempt being made to separate and then reposition the soft tissue. To my mind, this is the crux of invention (i) and, quite understandably, Mr Bullivant had not fully appreciated this when cross-examined about the sentence in question.
- 78 There is nothing in the evidence to suggest that either Mr Bullivant or Mr Paterson had inventive input into the invention of replacing body parts entirely by an implant in the manner of invention (i). Since the onus is on the referrer I have no need to comment further on this point, but I will add that Mr Peckitt's evidence that he did invent this concept is very strong. Accordingly I find that Mr Peckitt was the sole inventor of invention (i).

### **Invention (ii)**

- 79 The paragraph beginning at line 32 on page 2 of the patent specification essentially defines the substance of invention (ii). When Mr Love questioned Mr Bullivant about this paragraph he conceded initially that it described exactly what Mr Peckitt had brought to Customflex Limited. Further cross-examination revealed it seemed to me that Mr Bullivant was finding it difficult to distinguish in his mind between the concept described in the paragraph, namely the idea of obtaining data, using them to create a model and using the model to develop and fit to size an implant which entirely

replaces the body part, and the working technique which had been developed to bring that concept into reality. He was clearly of the opinion that while Mr Peckitt had provided the broad idea, he, Mr Bullivant, had contributed significantly to the technique bringing it into being. Evidence for this came, for example, from his comment that Mr Peckitt had not brought the step of using the model to develop and fit to size an implant, because he had not identified what the implant would look like or how it would be fixed. He went to great pains in both his oral and written evidence to explain that it was not simply a matter of using the model to machine an implant that exactly replicated the body part to be replaced. Other considerations such as facial stress, symmetry, skin cover and thickness were of paramount importance in determining the dimensions and fixation of the implant.

80 Mr Paterson's testimony on this issue was less clear cut but, when pressed about exactly what Customflex Limited's inventive contribution had been, his response was, in essence, the same as Mr Bullivant's. He said the company had input into the design and creation of the implant from Mr Peckitt's model. Customflex Limited had invented the process which made Mr Peckitt's idea possible. I found all this rather vague, however, and generally unconvincing.

81 Mr Roughton sought to persuade me that the contribution which Messrs Bullivant and Paterson had made was substantial and such as to entitle them to rights in the invention. He pointed out that, before the relationship between the parties had broken down, Mr Peckitt had clearly recognised the value of this contribution. In this context, he cited in support the agreement which I have already considered between the parties about sharing in the patent, and the letter from Mr Somers which stated specifically that Mr Peckitt wished to reflect the time and effort contributed by Customflex Limited in the development of his concept. Mr Roughton was, as I have already mentioned, using the alleged agreement not as an enforceable instrument but as evidence of a recognition by the respondent of the referrer's contribution. He said the actions of Mr Peckitt toward the other side, amounted to an "expression of loyalty" that could only have occurred in a situation in which they had made a significant intellectual contribution to the invention. That contribution, Mr Roughton argued, was inventive because it enabled a man skilled in the art to use the model to develop the implant and fit it to size. Without Customflex Limited's contribution, the skilled man would have been unable to perform Mr Peckitt's idea and Mr Peckitt would not have been in a position to apply for a patent. Mr Roughton also pointed out that paragraphs 14 and 15 of Mr Peckitt's statutory declaration indicated that the invention was completely formulated in his head by the time he approached Customflex Limited in October 1995. He suggested that the company must have contributed something to the invention between then and September 1996 when the patent application was filed, though Mr Peckitt had denied this during re-examination by Mr Love, explaining that the delay in filing was simply because he was concerned to ensure that the implants would work in practice. I have to say I find this a credible position for a medical specialist, largely unaware at that time of patenting procedures, to take.

82 I have no doubt that translation of the model into an implant that would meet the demanding clinical parameters required and so not fail in use is an important and

highly skilled aspect of how the invention is carried out in practice. I believe that Customflex Limited did have a significant role to play in designing and making implants for patients who were to have prostheses fitted according to the method defined in invention (ii). I am not persuaded by Mr Roughton's argument that this amounted to an inventive contribution however. In my opinion the referrer's evidence fails to show that, on the balance of probabilities, Customflex Limited contributed inventively rather than incidentally to Mr Peckitt's original concept. On his evidence he had wholly devised this invention before approaching the referrer, and his immense medical knowledge and not negligible engineering knowledge make that quite feasible. In other words, I believe the input of Messrs Paterson and Bullivant was incidental to invention (ii) and therefore I find that Mr Peckitt was the sole inventor of it.

### **Invention (iii)**

- 83 In paragraph 36 of his first statutory declaration Mr Paterson says "As far as the dental block product is concerned, the dental implants were created because the respondent did not have time to have a special model made as he was about to perform an urgent surgical procedure. He asked the applicant if it would be possible to have some sort of device which would enable him to easily attach dentures to a Thorpe (sic) plate, which is a conventional reconstruction plate. Of all the implants made, the dental implants are the ones in which the respondent had absolutely no input." Under cross-examination, both Mr Paterson and Mr Bullivant confirmed that in their view Customflex Limited had created the dental connector block.
- 84 Mr Love questioned Mr Bullivant repeatedly on the complexities of designing a connector block for a patient, I suspect in an attempt to cast doubt upon his ability to design one without substantial input from Mr Peckitt. Mr Bullivant admitted he had no dental qualification himself but insisted that he had mastered the necessary techniques. However, he also admitted it would have been odd that Mr Peckitt had taken no part, bearing in mind his qualifications in dentistry.
- 85 In paragraph 47 of his statutory declaration, Mr Peckitt says "The design of the stud abutment was entirely my idea". He goes on to say that the stud abutment is based on a design made by Professor Branemark and claims that he explained to Mr Bullivant in considerable detail what the dimensions of the abutment would have to be. He insists that he designed the contour and height of the stud to avoid problems associated with the Branemark design. The design work to achieve this was not straightforward and could not have been done by someone without a detailed knowledge of anatomy. Elsewhere in his declaration he says Mr Bullivant had no understanding of the concepts relating to prosthetic dentistry and no experience with respect to denture abutments.
- 86 In addressing this apparent conflict, Mr Roughton said it was significant that Mr Peckitt's oral and written evidence was limited to what he had termed the "dental stud abutment", arguing that there was no evidence from him in relation to the block or the joiner to the block. Mr Roughton claimed there was, in fact, no conflict of evidence on this point. Mr Peckitt was saying, in effect, that only the dental stud abutment (that is the shaft 54 shown in figure 7A of the patent application with the

ball 56 on it) was his idea, whereas Customflex Limited was saying that it invented the connector block, that is the combination of the stud or post with a body formed with passages for rivetting to a surgical plate.

87 In response, Mr Love argued that Mr Peckitt had used the term “stud abutment” in relation to the connector block assembly as a whole, which he had invented, and “abutment” in relation to what was already known.

88 I have studied Mr Peckitt’s written and oral evidence very carefully on this point. I note in particular that in paragraph 45 of his statutory declaration, he says he presumes that by the expression “dental block product” in Mr Paterson’s statutory declaration he means the design of “stud denture abutment” which can be rivetted onto Thorp plates. That appears consistent with Mr Love’s submission. However, in the following paragraphs, Mr Peckitt appears to use the terms “stud”, “abutment”, “stud abutment” and “denture abutment” interchangeably. While this variable terminology makes Mr Peckitt’s written evidence more difficult to follow, I do not consider it indicative in any way that Mr Peckitt was claiming as his invention only the stud (that is the shaft 54 with the ball 56 on it), as distinct from the connector block assembly as a whole. I am persuaded that, on the balance of probabilities, the connector block concept and part of the design and development work associated with it came from Mr Peckitt. I believe that Mr Bullivant also played a part in the design and manufacture of the connector block but, on a balance of probabilities, I am not persuaded that that part was more than incidental. I do not consider that his contribution amounted to an inventive contribution. The referrer has not therefore discharged the onus on it and I find that Mr Peckitt was the sole inventor of invention (iii).

#### **Invention (iv)**

89 In relation to this invention, I should first mention that, in a letter dated 16 June 1998 to the referrer, the respondent proposed to remove all references to the rivetting tool from the patent application. The fourth paragraph of the letter states "Our client makes no admission concerning your client's entitlement to this aspect of the invention". Subsequently, those references were indeed removed from the patent application and they do not appear in the granted patent. Questioned by me about the respondent's precise intentions vis-à-vis the rivetting tool at the hearing, Mr Love made it clear that while his client was not pressing his claim to this subject matter, neither was he conceding it to the other side. In these circumstances, it seems to me that I should determine the matter of inventorship (and hence entitlement) in invention (iv).

90 It is clear from the evidence of both Mr Paterson and Mr Bullivant that they firmly believe they invented the rivetting tool defined in invention (iv). Mr Paterson spoke in general terms of his participation in the development of a rivet gun. Mr Bullivant was more specific. He said the rivetting tool described in the patent application with reference to figures 6A and 6B was invented wholly by himself. Mr Paterson said in cross-examination that the rivet device was the main bone of contention in this matter.

- 91 Mr Peckitt's evidence is particularly revealing. He said that he had told Customflex Limited that the implants had to be rivetted to the reconstruction plates but he said very little about the rivetting tool itself other than "it's just a tool in the manufacturing process". He freely admitted that the description of the rivetting tool was included in the patent application in error and said there was no intention to claim the tool. Nonetheless, as I have already mentioned, Mr Love made it clear in his submissions that while his client was not pressing his claim for entitlement to the rivetting tool, neither was he conceding entitlement to it.
- 92 In his summing up, Mr Love argued that, even if I were to find that Mr Peckitt played no part in the design of the rivetting tool, he should have joint rights in it because it was developed to work on the implants which Mr Peckitt had designed. In his contention, the tool could not have been developed in isolation. I do not accept this line of reasoning. It seems to me that Mr Peckitt's only input was to tell Customflex Limited that his implants would need to be rivetted. Mr Bullivant was then left alone to design a suitable tool that would work in the surgical environment demanded. There is no evidence to show that Mr Peckitt suggested use of a C-shaped frame, an anvil, a compression member, or for that matter any other feature present in the rivetting tool according to invention (iv).
- 93 Having thoroughly considered all the evidence on this issue, I am not persuaded that Mr Peckitt was interested in, or become involved to any significant degree in the design and development of, the rivetting tool, which is more of an engineering adjunct to the main thrust of his inventive ideas concerning implants than an integral part of them. I have already discounted Mr Paterson's role in any inventive capacity. I have therefore reached the conclusion that the rivetting tool was developed by Mr Bullivant alone.
- 94 I am aware that, in their statement initiating these proceedings, the referrer seeks an order that Mr Bullivant (and Mr Paterson) be named as joint inventors with Mr Peckitt. Mr Love reminded me of this, but I cannot ignore the finding I have been driven to on the evidence. Having reached the conclusion that the rivetting tool was devised by Mr Bullivant alone, I find that he is the sole inventor of invention (iv).

### **Entitlement**

- 95 I have previously indicated that entitlement in the inventions in issue flows from who invented them, subject to sections 7(2) and 39. As I have already established, there is no enforceable agreement which would override the statutory position. In other words, having found that the respondent was the sole inventor of inventions (i), (ii), and (iii), it follows from section 7(2)(a) that he is also entitled to them. As for invention (iv), I have found that Mr Bullivant was the sole inventor. I have previously noted that there is no dispute that in relation to the subject-matter of this case Mr Bullivant was carrying out his normal duties for the referrer company at the relevant time. It follows under section 39 that entitlement in invention (iv) belongs to the referrer.

### **Relief and Order**



- 96 As already mentioned above, in its letter of 16 June 1998 the respondent had proposed to remove all references to the rivetting tool from the patent application, and that was subsequently carried into effect by amendment of the patent application to exclude all the matter relating to invention (iv). The result is that the granted patent only relates to matter which I have found the respondent to have invented and be entitled to. There seems no order to make in relation to inventions (i) to (iii) therefore.
- 97 That leaves invention (iv), in which I have found that Mr Peckitt has no inventorship or ownership rights, and which no longer forms part of the patent in suit. Rather, I have found it to have been invented by Mr Bullivant and entitlement in it to reside with the referrer. As Mr Love pointed out, the referrer sought joint rights in the patent application, and Mr Roughton too felt he could not approbate or reprobate from that. Mr Love thus suggested the correct order for the rivetting tool should be joint entitlement. Such an order, however, is not consistent with my findings on the evidence. It is not clear to me what form of order, if any, the referrer would seek, beyond a declaration of the finding I have made. I therefore leave it open to the referrer to make written submissions on that point, should it wish to do so, within three months of the date of this decision. The respondent is not in the same position as the referrer in relation to invention (iv) in view of my findings, but he too is free, if he wishes, to make written submissions as to the order within the same period. Any submissions I receive from either side will of course be copied to the other side for comment before any order is made.

### **Costs**

- 98 Both sides addressed me briefly at the hearing on the question of costs. It is the usual practice in proceedings before the comptroller that these should not be compensatory but should be awarded as a contribution derived from a scale published from time to time. As consideration of costs was deferred at the preliminary hearing, in determining the issue now, I have to bear in mind all the circumstances of both the preliminary and the substantive hearing.
- 99 At the preliminary hearing I found against the referrer in respect of the application to strike out the respondent's evidence on grounds that it was inadmissible hearsay, and against the respondent in respect of most but not all of his submission regarding the referrer's evidence being not strictly in reply. I permitted the referrer's request for cross-examination of witnesses, but only after hearing and resolving some legal points occasioned by the way in which the request was put in.
- 100 As regards the substantive hearing, of the four inventions I identified in the patent application, I have found for the respondent on three of them, and against him on one. That said, on that one, invention (iv), the respondent's lawyers took a position by which they were not pursuing it but were not conceding it either. As to other factors, I should mention in particular that whereas I am satisfied that cross-examination of all six witnesses was entirely appropriate for the proper conduct of the hearing, I have to take into account the fact that the respondent in particular has been put to

considerable inconvenience and expense in arranging for his witnesses to be present at the hearing.

- 101 Taking all these factors into consideration, I have decided that there should be an award of costs to the respondent and I order that Customflex Limited pay to Mr Peckitt the sum of £1,200 as a contribution to his costs.

**Appeal**

- 102 This being a decision other than on a matter of procedure, the time within which any appeal may be lodged is six weeks from the date of this decision.

Dated this 8<sup>th</sup> day of May 2001

**S N DENNEHEY**

Divisional Director, acting for the Comptroller

**PATENT OFFICE**