

BLO/016/86

PATENTS ACT 1977

IN THE MATTER OF Patent No 2035242B
in the name of RICHARD HOSEASON SMITH

and

IN THE MATTER OF an application by
BRUPAT LIMITED for the revocation thereof

DECISION

Revocation of the patent was sought on the following grounds:-
(i) Lack of novelty under Section 2(3) of the Act having regard to UK patent application 7919169 which was published by virtue of the publication of European patent application (UK) No 80301793.8 (Publication number 0020152) claiming priority therefrom; (ii) lack of novelty under Section 2(2) having regard to UK specification 1496510 and articles appearing in the magazines "Small Boat" (exhibit A) and "Motor Boat and Yachting" (exhibit B); (iii) obviousness having regard to UK specifications 1513453, 1496510, 1393431, 1356661, 1356259 and application 7919169; (iv) the specification does not disclose the invention clearly enough or completely enough for it to be performed by a person skilled in the art; (v) the method of operation of the invention is not clearly or completely described; (vi) the matter disclosed in the specification of the patent extends beyond that disclosed in the application for the patent as filed; and (vii) the protection conferred by the patent has been extended by an amendment which should not have been allowed.

At the hearing before me on 29 October 1985 the patentee, Mr Richard Hoseason Smith, appeared in person and Mr Peter Prescott and Miss Fiona Clark instructed by

Messrs Fitzpatrick's (Glasgow) appeared as Counsel for the applicants for revocation.

The patent in suit (2035242B) was published on 13 April 1983 and is based on application 7939526 by Mr Smith on 15 November 1979 and claiming a priority date of 17 November 1978 from application 7845106. Application 7939526 was 'A' published on 18 June 1980.

The patent relates to an anchor, for mooring boats and other floating structures, having a single fluke fixed with respect to a shank. The term "fluke" is defined in the specification as "that part of the anchor adapted and arranged on the shank for blade-like penetrating engagement with a mooring bed of penetrable material such as mud, sand, shingle and the like thereby to develop resistance to being dragged". In one arrangement (Figs 1 to 3) the shorter leg 11b of a generally L-shaped shank 11 is fixed to a fluke 10 symmetrical with respect to the medial plane 14 of the shank. The fluke 10 is of plate-like configuration the underside of which defines three flat surfaces 10a, b, the surface 10a constituting the sole of the fluke and the two surfaces 10b the undersurfaces of generally triangular fluke side lugs 15. The surfaces 10a, b lie in three mutually different planes (Fig 2) each of which intersects the others along lines 16 parallel with or lying in the medial plane 14. The leading edge 17 of the fluke is swept back. The shank 11 has holes 12, 13 at opposite ends of its longer leg 11a for the connection of anchor and trip chains in conventional manner. The self-burying operation of the anchor is described on page 2 lines 24-60 and it is stated that "During the penetrating action of the anchor, the flat surfaces constituting the underside of the fluke act against any tendency of the anchor to roll or rotate on an axis substantially coincident with the direction of drag force in the anchor cable at the connection point 12. When the anchor has reached a depth of penetration sufficient to establish a holding power equal to the drag force in the anchor cable, the flat surfaces

constituting the underside of the fluke improve the holding power of the anchor particularly in mooring bed materials consisting of soft mud and the like". On page 2 lines 67-74 it is added that "In all designs for mooring beds of penetrable material, improvement in respect of stability against "roll out" and in respect of holding power is derived from the flat characteristic of the undersurfaces of the fluke and from the intersections of the surfaces lying on lines parallel with or in the medial plane of the shank".

To improve performance in very soft muddy conditions of the mooring bed a vane or wall member 20 (Fig 4) may extend fully across the heel of the fluke to cooperate with rearward extensions 15b of the side lugs 15 thus forming a scoop-like configuration. The member 20 improves self-burial by, during dragging of the anchor, upwardly deflecting material exiting rearwardly from the top surface of the fluke (page 2 lines 97-104). Member 20 also improves holding power in soft mooring beds.

In a further modification (Figs 5-8) two pairs of toes 21, 22 formed by slots at the leading edge of the fluke improve penetration in less readily penetrable bed conditions. Cutting elements 25 (Fig 9) may be secured within the slots between toes 21, 22 to improve both penetration of the fluke leading edge and lateral stability when buried. The fluke of Figs 5 to 8 may be fabricated from an assembly of flat steel plates welded together to define a hollow interior. In further modifications, the shank may be straight rather than L-shaped and the swept back leading edge shape of the fluke sole may be dispensed with. Preferred angles and dimension ratios are specified.

The independent claims 1, 14 and 15 of the patent are set out below. Claim 16 is an omnibus claim and the remaining claims 2 to 13 are dependent to at least claim 1.

Claim 1 reads "An anchor having a single fluke fixed with respect to a shank of generally L-shape, the fluke being

disposed at the end of one leg of the shank symmetrically with respect to the medial plane of the shank, and the underside of the fluke comprising three mutually inclined flat surfaces together constituting substantially the entire undersurface of the fluke".

Claim 14 reads "An anchor having a single fluke fixed with respect to a shank, the fluke being disposed at one end of the shank symmetrically with respect to a medial plane of the shank, and the underside of the fluke comprising three mutually inclined flat surfaces together constituting substantially the entire undersurface of the fluke".

Claim 15 reads "An anchor comprising a plate-like fluke composed of a central sole lying in a plane normal to a plane of symmetry of the anchor, the sole having a longitudinal fore-and-aft dimension in the direction of the line of intersection of the sole and symmetry planes and a transverse dimension parallel to the sole plane and perpendicular to the said intersection line, the sole extending longitudinally and forwardly from a heel to two toes lying respectively on opposite sides of the symmetry plane, and also composed of two lugs transversely spaced apart by the sole, both lugs being inclined at equal acute angles from and to one side of the sole plane and each lug having a longitudinal fore-and-aft dimension less than that of the sole and extending forwardly from the heel to a toe of the lug, the undersurface of the sole and of each lug being flat and these surfaces together constituting substantially the entire undersurface of the fluke, the anchor also comprising a cranked shank having a medial plane coincident with the symmetry plane, the shank being composed

of a first leg joined at one end to the heel and extending from the heel to a knee spaced from and to the one side of the sole plane and a second leg extending forwardly from the knee to a free end adapted to be attached to a chain, cable or rope".

The independent claims 1, 13 and 14 of the original 'A' specification are set out below.

Claim 1 reads "An anchor having a single fluke fixed with respect to a shank of generally L-shape, the fluke being disposed at the end of one leg of the shank symmetrically with respect to the medial plane of the shank, and the underside of the fluke comprising three flat surfaces lying respectively in mutually different planes each of which intersects the others along lines parallel with or in the medial plane of the shank."

Claim 13 reads "An anchor having a single fluke fixed with respect to a shank, the fluke being disposed at one end of the shank symmetrically with respect to a medial plane of the shank, and the underside of the fluke comprising three flat surfaces lying respectively in mutually different planes each of which intersects the others along lines parallel with or lying in the said medial plane of the shank."

Claim 14 reads "An anchor comprising a plate-like fluke composed of a central sole lying in a plane normal to a plane of symmetry of the anchor, the sole having a longitudinal fore-and-aft dimension in the direction of the line of intersection of the sole and symmetry planes and a transverse dimension parallel to the sole plane and perpendicular to the said intersection line, the sole extending longitudinally and forwardly from a heel to two toes lying respectively on opposite

sides of the symmetry plane, and also composed of two lugs transversely spaced apart by the sole, both lugs being inclined at equal acute angles from and to one side of the sole plane and each lug having a longitudinal fore-and-aft dimension less than that of the sole and extending forwardly from the heel to a toe of the lug, the anchor also comprising a cranked shank having a medial plane coincident with the symmetry plane, the shank being composed of a first leg joined at one end to the heel and extending from the heel to a knee spaced from and to the one side of the sole plane and a second leg extending forwardly from the knee to a free end adapted to be attached to a chain, cable or rope."

Evidence in support and reply for the applicants for revocation comprises two statutory declarations by Mr Peter Bruce together with 16 exhibits, and evidence in support from the proprietor comprises an affidavit by Mr Richard Hoseason Smith himself with 6 exhibits.

For Brupat, a supplementary statement was filed on 11 March 1985 drawing attention to Japanese Utility Model Publication No 49-4470, published 1 February 1974, particularly with reference to claim 11 of the patent in suit the feature of which was alleged to be disclosed in the publication. Mr Smith filed a supplementary counter statement on 19 March 1985 objecting to the introduction of this document outside the time limits and drawing attention to the poor translation and apparent contradictions in the drawings. Mr Smith pursued these arguments at the hearing and requested that the document should not be admitted. Although I considered that there was some substance in Mr Smith's contention of late filing I accepted Mr Prescott's argument that there had been ample time for Mr Smith to consider the Japanese document and to submit arguments against it and I accordingly ruled that it should be admitted but indicated

that Mr Smith's arguments regarding the translation and the drawings would be taken into account in assessing the documents relevance. In the event it turned out that Mr Prescott did not refer to the document to pursue his case.

Shortly before the hearing, on 18 October 1985 Brupat filed a further Supplementary Statement under rule 75(2) seeking to introduce into the proceedings a paper prepared by Mr Peter Bruce in 1971 entitled "The Bruce Anchor: Comparative Tests of Ultra Short Scope" together with evidence purporting to establish that this paper had been published to a number of people in 1971 in the course of commencing commercial and public disclosure of anchors depicted therein with no instruction or restriction on confidentiality. Mr Smith argued that the Supplementary Statement and supporting evidence should not be admitted since there had been insufficient time for him to prepare a response. Mr Prescott indicated that the only part of the document relied on was Fig 1.1 which illustrated an anchor having two prongs to break the ground instead of one. Mr Smith expressed surprise at the necessity of filing this documentation merely to establish that anchors with two toes existed before his application. I understood him to accept that anchors with twin toes were common general knowledge in the art prior to 1978. On that basis Mr Prescott did not press the matter further and I decided that the documents should not be formally admitted.

Mr Smith also objected at the hearing that the applicant's declaration containing exhibits A, B, D and E had been sworn before their own solicitor who was not therefore an independent party. Mr Prescott said that if this evidence was found to be defective he would re-submit it in properly sworn form. However on studying Rules 104 and 105 of the Patent Rules 1982 I indicated that the case could proceed with this evidence as it stood.

The final preliminary issue related to a request by Mr Smith to amend his specification under Section 75, the request having been advertised in the Official Journal (Patents) of 27 December 1984. There was no dispute that the alteration of "leg" to "lug" in line 54 of page 1 of the 'B' specification was a correction of an obvious clerical error and this may be allowed.

However Mr Prescott contended that the other proposed amendment in line 28 of page 2 wherein it was desired to move the comma so that "Regardless of the initial attitude of the anchor on contacting the mooring bed," read "Regardless of the initial attitude of the anchor, on contacting the mooring bed" was not allowable as the two meanings were quite different. Mr Smith agreed with Mr Prescott that in any event this proposed amendment was not relevant to the present proceedings and he would not pursue it at this stage.

Before considering the facts of the case in detail I would observe that some of the evidence filed indicates that the patentee, Mr Hoseason Smith, has manufactured an anchor termed the Hoseason Smith Hook (exhibit E) which appears to conform to the claims of the patent in suit and that he has already been successfully sued by the applicants, Brupat Ltd, in the Court of Session, Edinburgh for infringement of patent 1356259 by the said anchor. Patent 1356259 is in the name of Peter Bruce, the director of Brupat, who also gave evidence in the present proceedings. Back in 1978 both Messrs Bruce and Smith were being advised by the same firm of patent agents who acted for Mr Smith in the filing on 17 November 1978 of application 7845106, from which the present patent claims priority, and for Mr Bruce in the filing on 1 June 1979 of application 7919169 from which E.P. No 0020152 claims priority. To avoid a conflict of interest Mr Smith transferred to a second firm of patent agents who acted for him in filing on 15 November 1979 application 7939526 for the present patent. Section 21 observations were subsequently filed by the first firm in pre-grar

proceedings, these observations forming the basis for much of the evidence in the present action. While this indicates the background against which the present action was brought, I have not found it to be of assistance in reaching the decision which I have to make in this case.

Turning now to the main issues, at the hearing Mr Prescott dealt first with the ground that there was matter in the granted patent extending beyond that in the specification as filed. He drew my attention to numerous passages in the 'A' specification referring to parallelism between the fold lines 16 where the side lugs 15 meet the sole position of the fluke 10. He pointed out that both of the original claims 1 and 13 and the corresponding consistory clauses include the words "and the underside of the fluke comprising three flat surfaces lying respectively in mutually different planes each of which intersects the others along lines parallel with or in the medial plane of the shank." Mr Prescott submitted that nowhere does the original description depart from the idea of parallelism and as indicated in lines 37 to 41 of page 2 this feature makes a contribution to stability of the anchor. He contended that although parallelism is absent from original claim 14 this claim is concerned with a different idea, namely a pair of toes at the leading edge of the fluke to assist burial, not having unity of invention with claims 1 and 13.

Mr Prescott pointed out that the claims of the granted patent had been widened by abandoning parallelism to now encompass constructions such as that shown by the Hoseason Smith Hook of exhibit E where the fold lines converge and that this widening was not justified by the original disclosure. To support his argument Mr Prescott drew my attention to the judgment in GLATT's Application [1983] RPC 122 and likened the omission of parallelism from the granted claims to the unallowable absence of the requirement for air-permeability of the fabric conditioning article claimed in the Glatt

application. He referred me to headnote (2) of the judgment which reads "The claim put forward by the applicant covered something which was never within the contemplation of the inventors as described in their specification." Mr Prescott also drew my attention to the judgment in B & R Relay Ltd's Application [1985] RPC 1 and to the headnotes which read (1) "The question to be asked was whether the skilled person would find in the original description an indication that it was important to have the features now sought to be deleted. (2) A skilled person reading the original description must inevitably have concluded that the contacts bridged by the movable member were essential features. (3) Section 14(5)(c) of the Act required that the claims must be supported by the description and there was nothing in the original description which could conceivably support a claim omitting those features." Mr Prescott likened the omission of parallelism to the omission of the contacts bridged by the movable member and whilst he conceded that claims could be broadened without adding subject matter he contended that this was not the case in the present circumstances and a contravention of both Sections 14(5)(c) and 76 had taken place.

I should observe that whilst issues involving Sections 14(5)(c) and 76 are often closely linked I need only concern myself here with Section 76 since lack of support for the claims in contravention of Section 14(5)(c) is not in itself a ground for revocation under Section 72. Mindful of this I do not feel that the present case is on all fours with either the Glatt or the B & R Relays judgments. The original claim 14 and consistory clause on page 1 refer inter alia to "a plate-like fluke composed of a central sole lying in a plane normal to a plane of symmetry of the anchor, ... and also composed of two lugs transversely spaced apart by the sole, both lugs being inclined at equal acute angles from and to one side of the sole plane." This claim thus embodies the idea of three

inclined planes which by implication intersect but with no mention of parallelism. I cannot accept Mr Prescott's contention that this is a quite different idea to that of claims 1 and 13. Whilst I agree with Mr Prescott that the original specification makes clear that parallelism contributes to the stability of the anchor there are passages in the specification which describe the advantageous nature of the fluke flat undersurfaces without any mention of parallelism. For example lines 48 to 59 on page 2 read "During the penetrating action of the anchor, the flat surfaces constituting the underside of the fluke act against any tendency of the anchor to roll or rotate on an axis substantially coincident with the direction of drag force in the anchor cable at the connection point 12. When the anchor has reached a depth of penetration sufficient to establish a holding power equal to the drag force on the anchor cable, the flat surfaces constituting the underside of the fluke improve the holding power of the anchor particularly in mooring bed materials consisting of soft mud and the like." Having regard to such passages and the wording of claim 14 and its consistory clause I am not persuaded that the skilled reader of the original document as a whole would conclude that parallelism was essential. I cannot therefore concur with Mr Prescott's view that the broadening of claims 1 and 14 of the granted patent by the omission of parallelism extends the disclosure beyond that of the original specification.

Mr Prescott went on to argue that claims 1 and 14 of the patent are anticipated under Section 2(3) by the Bruce UK application 7919169 which was filed on 1 June 1979 and published on 10 December 1980 by the virtue of the publication of the E. P. application 0020152 which claimed priority therefrom.

The UK application relates to an anchor shank for attachment to a fluke 3 having a centre part and side portions 3a, 3b. Fig 3 shows the centre part as having a flat undersurface but

the side portions are curved upwardly. However lines 18 to 20 on page 5 refer to a modification in which "instead of a curved form, the side portions 3a, 3b could be flat but inclined." This modification is notably absent from the published E. P. application.

I pointed out to Mr Prescott that even if the claimed priority date of the patent of 17 November 1978 were to fall it did not appear to me that the Bruce UK application formed part of the state of the art as defined by Section 2(3). The latter reads "The state of the art in the case of an invention to which an application for a patent or a patent relates shall be taken also to comprise matter contained in an application for another patent which was published on or after the priority date of that invention, if the following conditions are satisfied, that is to say-

- (a) the matter was contained in the application for that other patent both as filed and as published; and
- (b) the priority date of that matter is earlier than that of the invention."

Going now to Section 130(5) this reads "References in this Act to an application for a patent being published are references to its being published under Section 16 above." Since the Bruce UK application was allowed to lapse and was never published under Section 16 it cannot in my view form part of the state of the art under Section 2(3).

However, Mr Prescott directed me to Section 78(1) which reads "Subject to the provisions of this Act, an application for a European patent (UK) having a date of filing under the European Patent Convention shall be treated for the purposes of the provisions of this Act to which this section applies as an application for a patent under this Act having that date as a date of filing and having the other incidents listed

in subsection (3) below, but subject to the modifications mentioned in the following provisions of this section." He pointed out that by virtue of Section 78(2), Section 78(1) applies to the provisions of Section 2(3). Mr Prescott then led me to Section 78(3) which reads "The incidents referred to in subsection (1) above in relation to an application for a European patent (UK) are as follows:- (d) the application, if published in accordance with that convention, shall, subject to subsection (6) and Section 79 below, be so treated as published under Section 16 above."

I pointed out to Mr Prescott that publication of the European patent application is covered by Article 93 of the European Patent Convention. The latter reads:-

"Publication of a European patent application"

"(1) A European patent application shall be published as soon as possible after the expiry of a period of eighteen months from the date of filing or, if priority has been claimed, as from the date of priority." ... and so on.

"(2) The publication shall contain the description, the claims and any drawings as filed and, in an annex, the European search report and the abstract, in so far as the latter are available before the termination of the technical preparations for publication. If the European search report and the abstract have not been published at the same time as the application, they shall be published separately."

What is actually printed is thus defined in Article 93(2) and this does not include the priority document which is merely laid open to public inspection as part of the file relating to the application in accord with Article 128(4) which reads:-

"Subsequent to the publication of the European patent application, the files relating to such application and the resulting European patent may be inspected on request, subject to the restrictions laid down in the Implementing Regulations."

It seems to me that the wording of this Article makes it clear that such "publication" by public inspection of the files is not regarded as "publication of the European patent application" in accordance with the Convention. Moreover, Article 78 defines the requirements of a European patent application and subsection (1) reads:-

"A European patent application shall contain: (a) a request for the grant of a European patent; (b) a description of the invention; (c) one or more claims; (d) any drawings referred to in the description or the claims; (e) an abstract." Again, this does not include the priority document.

Mr Prescott argued that Article 78 is merely a list of the minimum contents required for a European patent application but not a legal definition of the contents of the application. He admitted that if he was wrong then 7919169 could not lie in the Section 2(3) field. I think Mr Prescott is wrong and to my mind, on a proper construction, EPC Article 78 does define the "content" of a European patent application. Thus, it seems to me that when section 78(3)(d) of the Act refers to "the application, if published in accordance with that convention" it means the application as defined in Article 78 and as published under Article 93(2) of the EPC. I therefore conclude that a priority document filed in support of a European patent application cannot be regarded as part of the state of the art under section 2(3). I would observe that to conclude otherwise would have the bizarre result that a foreign application

filed in support of a European application could also form part of the state of the art under section 2(3), although such an application could never be regarded as published in its own right under section 16.

I find confirmation for my view that Mr Prescott is wrong in part C, chapter IV paragraph 6.1 of "The Guidelines for Examination in the European Patent Office." This paragraph deals with Article 54(3) of the EPC and is analogous to section 2(3) of the Act. Paragraph 6.1 reads "The state of the art also comprises the content of other European applications filed earlier than, but published under Article 93 on or after, the date of filing of the application being examined, to the extent that the earlier and later applications designate the same State or States..... By the content of a European application is meant the whole disclosure, ie the description, drawing and claims, including any matter explicitly disclaimed or prior art explicitly described. However the "content" does not include any priority document (the purpose of such document being merely to determine to what extent the priority date applies to the disclosure of the European application (see V, 1.2) nor, in view of Article 85, the abstract (see B-X1, 3)".

I am fortified in my conclusion also by the judgment in Mitsui Engineering & Shipbuilding Co. Ltd's Application [1984] RPC 471 from the foot of p.477 to L.19 on page 478. Falconer J, in considering the question of whether a priority document forms part of an application under the Act, after considering inter alia Section 14(2), which is similarly worded to EPC. Article 78(2); concluded "Under the provisions of the statute and the rules as to what is to be contained in an application for a patent, therefore, there is no basis for considering that a priority document is one of the documents that make up an application for a patent."

It is fundamental to Mr Prescott's Section 2(3) argument that the patentee's claimed priority date of 17 November 1978 should fall. Though I have concluded that the Section 2(3) case has no foundation, I will consider his arguments on priority since they have bearing on my consideration in due course of other citations.

Mr Prescott argued that the idea of flat undersurfaces of the fluke which is fundamental to claims 1, 14 and 15 of the patent is nowhere to be found in the priority application 7845106. He drew my attention particularly to Figure 2 of the latter which he contended showed a curved anchor with two toes. In response Mr Smith pointed out that there are frequent references in the priority document to a "plate-like fluke" and that Chamber's Dictionary defines a "plate" as "something flat". More convincing in my view are the words appearing in lines 12 to 14 of page 2 with reference to the "plate-like fluke" which read "... and also composed of two lugs transversely spaced apart by the sole, both lugs being inclined at equal acute angles from and to one side of the sole plane." This and other similar passages in the document when taken in conjunction with the drawings to my mind provide a convincing basis for the idea of flat undersurfaces of the fluke appearing in the claims of the granted patent. I thus conclude that the latter is entitled to the priority date of 17 November 1978.

Turning to the ground of lack of novelty under section 2(2), Mr Prescott contended that claims 1 and 14 are anticipated by the New Hook specification 1496510. The specification discloses an anchor having a single hollow fluke of delta-shape in plan view (Fig 1) formed from top and bottom plates 1, 2 connected by supporting ribs 3. In vertical longitudinal cross-section the fluke has a hydrofoil shape (Fig 3), the top and bottom plates converging to a sharp front edge and being connected at their rear ends by an inclined plate 4. The top plate 1 has a forwardly and downwardly curved shape

and the bottom plate 2 is either concave or flat (page 2 lines 5-7). Fig 2 appears particularly significant and shows the shape of the fluke when viewed from the rear. The fluke is pivotally connected to the shorter leg of a generally L-shaped shank 5. Delta-shaped slide plates 9 are provided on the bottom plate 2 as well as main stabilizers 7 at the tips of the fluke. Mr Prescott drew my attention particularly to Figure 2 and lines 3 to 7 on page 2 of specification 1496510 which read "The fluke of the present anchor will penetrate along a curve because the top plate has a forwardly and downwardly curved shape and the bottom plate 2 is either concave or flat." Mr Prescott argued, if my understanding is correct, that though the New Hook fluke is shown as being pivotally connected to its shank the words "An anchor having a single fluke fixed with respect to a shank" in claims 1 and 14 of the patent in suit do not exclude such a pivotal connection. Mr Smith disputed this view.

On my reading of the New Hook specification I cannot conclude that the fluke underside requirements of claims 1 and 14 have been clearly disclosed, though it is a very close thing. Moreover I find unconvincing Mr Prescott's argument that claims 1 and 14 do not exclude a pivotal connection since various documents cited in these proceedings have indicated that fixed fluke and pivoted fluke anchors are distinct types each with their own characteristics. For example line 30 onwards on page 1 of UK 1356661 (ESSO) reads "Dynamic anchors may be further subdivided into fixed fluke anchors and pivoted fluke anchors. The former usually have a single fluke and are normally set by means of two lines - the mooring line and a pennant. A significant disadvantage of fixed fluke anchors stems from the fixed angle described between the shank and the fluke." Mindful of this and the fact that claims 1 and 14 refer not merely to a fluke fixed to a shank but to a fluke "fixed with respect to a shank" I do not

think that the skilled reader of the patent as a whole would be left in any doubt that pivoted fluke anchors are excluded from the field covered by claims 1 and 14. I therefore find that anticipation of the latter by the New Hook specification 1496510 has not been established.

Mr Prescott went on to argue that if he was wrong on anticipation by the New Hook specification then in any event it rendered claims 1 and 14 obvious. He drew my attention to the headnotes of the judgment in Windsurfing International Inc v Tabur Marine (Great Britain) Ltd [1985] RPC59 for general guidance to the assessment of obviousness issues. In particular he cited headnote (1) which reads "The philosophy behind obviousness must take into account the same concept as anticipation, namely that it would be wrong to prevent a man from doing something which was merely an obvious extension of what he had been doing or what was known in the art before the priority date." He wondered what would be the infringement position of the user of a New Hook anchor if its pivotal connection jammed.

It seems to me that a hypothetical malfunction condition involving jamming of the New Hook fluke is hardly a situation I need concern myself with in assessing obviousness. On this issue Mr Bruce has merely stated in his evidence "The fluke of No 1496510 could be readily applied to a fixed shank anchor." Mr Smith clearly does not agree with Mr Bruce's assertion but has not attempted to disprove it. However in the absence of any real evidence to show that it is obvious to carry over the relevant constructional features from a pivoted fluke anchor to a fixed fluke type, I cannot regard Mr Bruce's assertion as sufficient for me to establish a finding of obviousness against claims 1 and 14 on the basis of the New Hook specification.

Mr Prescott turned next to the ground of obviousness based on UK specification 1513453 (Peter Bruce) which was published on

7 June 1978. This specification states that a disadvantage of anchors such as in an earlier Bruce specification 1356259 having a fluke with a substantially concave upwards working surface is the inherent capacity of the concave fluke to focus pressure vectors and so increase the interparticle pressure of the sea bed soil immediately adjacent the shank, thus greatly increasing the resistance of the soil to penetration by the shank and reducing the ability of the anchor to bury deeply and develop high holding power. An object is to obviate or mitigate this disadvantage. Fig 2 is a schematic front view of the anchor of 1356259 showing how the curved fluke side arms 3, 4 achieve a roll-stabilization effect (see page 2 lines 45-72) "by having the bulk of the normals N from the upper working surface of each arm 3, 4 intersect the plane of symmetry S-S of the anchor 1 above the line O-O (Fig 1) connecting the cable attachment point 8 and the centre of area A of the fluke (ie above the roll axis of the anchor)". 1513453 goes on to say (page 2 line 117- page 3 line 9) "The present anchor can be produced by modifying the design of the said previous anchor according to 1356259 (Fig 2) so that each half fluke 3, 4 is rotated outwards about the intersection of its working surface with the central plane of symmetry (S-S) so that the mean centres of concave curvature C are laterally spaced from the shank 5. Alternatively as shown in Figs 3 to 5, each half fluke can be shifted laterally by the insertion of a flat central portion 9 in the fluke 2 so that a lateral separation of the mean centres C of concave curvature is achieved. Advantageously such a flat central portion causes no pressure focussing."

Mr Prescott directed my attention towards claim 15 of the patent in suit and argued that the reference in the first line thereof to a "plate-like" fluke is not clear and could not cover the embodiments of Figures 5 to 9 which consist of a hollow fluke made by casting or by welding flat plates together. I do not consider that it is necessary for me to reach a conclusion on this point since it is not relevant to

the revocation issue. Mr Prescott referred me to the side lugs 3, 4 and the single front toe in the Bruce specification 1513453 to support his contention that claim 15 is obvious. He argued that since by common consent the provision of two fluke toes had been known for many years the feature of two toes in claim 15 could not be inventive having regard to the single toe of the Bruce specification. Mr Prescott contended that the underside of the Bruce sole is flat and the only real difference lies in the shape of the side lugs 3, 4. He conceded that these are curved where they join the sole but submitted they are flat over the great majority of their surface. I pointed out to Mr Prescott that the side lugs 3, 4 are curved to produce a focussing effect as shown in Fig 5 but Mr Prescott responded by asserting that Figure 5 shows the curvature of the upper surface of the lugs and he still held the view that substantially the entire undersurface of the fluke is flat. Mr Smith contested this and drew my attention to the numerous references in the Bruce specification to curvature. Mr Bruce in his evidence merely states "I would advise that prior to the application (7939526) of patent 2035242B I was well aware that it would be possible to have the side lugs 3, 4 of 1513453 of flat form rather than of arcuate shape." He does not back up this assertion by any real evidence other than referring to his own application 7919169 which is not in the Section 2(2) field and cannot be taken into account in assessing obviousness.

I find Mr Prescott's arguments unconvincing and consider that the Bruce specification 1513453 plainly does not disclose a fluke wherein the undersurface of the sole and of each lug is flat and these surfaces together constitute substantially the entire undersurface of the fluke. Furthermore the Bruce specification is concerned with improving anchor performance by focussing the pressure vectors coincident with normals N from each of the curved side lugs 3, 4 and no real evidence has been produced to suggest that prior to the priority date of the patent in suit a skilled man would have thought

of replacing the curved lugs by flat members which do not focus. Accordingly I conclude that the applicants have failed to establish that claim 15 is obvious.

I should observe here that although at the hearing Mr Prescott did not pursue the Bruce specification 1513453 in his obviousness attack on claims 1 and 14 my reasoning above with regard to claim 15 would apply equally to disposing of such an attack on claims 1 and 14.

Since I have found that the applicants' attack on novelty or obviousness grounds pursued against all the main claims, 1, 14 and 15 has failed it is unnecessary for me to consider the arguments advanced by Mr Prescott against the subsidiary claims. The remaining grounds of obviousness listed when the application for revocation was first lodged have not been pursued at the hearing and I am satisfied that no objection exists in respect of these citations. With regard to the remaining documents cited against novelty, the "Sandford" anchor forming exhibit B is quickly disposed of since it was disclosed in a magazine article dated May 1979, that is later than the established priority date of 17 November 1978 of the patent in suit. There is some doubt whether the "Small Boat" anchor shown in the magazine article forming exhibit A can reasonably be regarded as a single fluke type but even if it can there is no clear disclosure that the underside of its fluke comprises three mutually inclined flat surfaces together constituting substantially the entire undersurface of the fluke as required by claims 1 and 14. The Japanese publication 49-4470 also lacks such a disclosure.

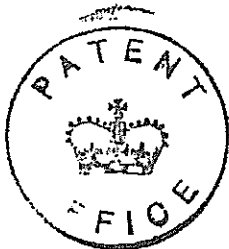
The ground under Section 72(1)(c) that the specification does not disclose the invention clearly enough and completely enough for it to be performed by a person skilled in the art was not pursued at the hearing except as part of the

objection to "~~added~~ subject matter", which I have already dealt with. The Statement under Rule 75(1) also put forward as a ground that the protection conferred by the patent has been extended by an amendment which should not have been allowed (namely removal of parallelism from claims 1 and 14). However, I construe Section 72(1)(e) as relating only to an amendment of the patent, whereas the amendment of claims 1 and 14 was made pre-grant. This ground was not pursued as such at the hearing and I have already dealt with the amended claims.

In the result, therefore, I find that the applicants for revocation have failed to establish any of the grounds pleaded and accordingly the application for revocation fails. I award the patentee the sum of £500 (five hundred pounds) as a contribution towards his costs incurred in these proceedings, and direct that this sum be paid to him by the applicants for revocation.

Dated this 3rd day of February 1986

J Sharrock
Superintending Examiner, acting for the Comptroller



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