Intellectual Property Office

BL O/1034/25

06 November 2025

PATENTS ACT 1977

BETWEEN

Mr Johan Stolt	Claimant
and	
Mr Mehmet Kurt	Defendant

PROCEEDINGS

Reference under sections 8 and 12 in respect of UK patent application GB2207702.8 and international application PCT/GB2023/051361

HEARING OFFICER Dr B Micklewright

DECISION

Introduction

1 These proceedings concern entitlement to UK patent application GB2207702.8 ("the GB application"), published as GB2619280, and PCT application PCT/GB2023/051361, published as WO2023/227887 ("the PCT application"). Both applications ("the patent applications") were filed in the name of Mehmet Kurt, the defendant, and Mr Kurt is also listed as the only inventor.

2 The claimant's primary case is that they are the sole inventor of the inventive concept of the patent applications and therefore are solely entitled to them. Alternatively, they plead that they are a joint inventor with the defendant and are therefore jointly entitled to the applications.

3 The defendant filed a counter-statement on 4 September 2024 following a preliminary hearing in which I decided that an extension of time for filing the counter-statement should be allowed.[1] The claimant then filed their evidence-in-chief on 14 March 2025. The defendant however filed no evidence within the period set for filing their evidence. A hearing had been scheduled for 23-25 June 2025 but, before this date, the defendant stated that they were withdrawing from the proceedings and

[1] BL O/1018/24

requested that the matter be decided based on the papers already filed. No hearing therefore took place.

4 This decision is therefore based on the papers filed in relation to these proceedings. Whilst I will consider arguments made by the defendant in their counter-statement, I will place less weight on these arguments given the defendant's withdrawal from the proceedings before filing their substantive evidence.

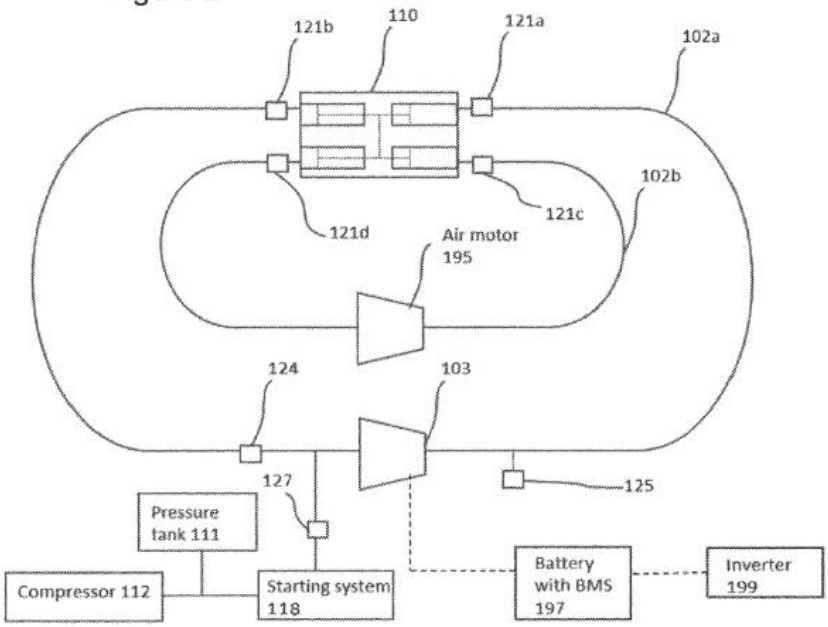
The invention

5 The PCT application and GB application are substantially the same in content. I will refer to the PCT application in this decision.

6 The PCT application is entitled "Closed-loop apparatus for electrical energy generation" and explains that the aim of the closed loop system is to generate energy from compressed air.

7 Figure 2, reproduced below, illustrates a fluid circulating apparatus suitable for circulating pressurised fluid comprising a first closed-loop pipeline 102a and a second closed-loop pipeline 102b. The first closed-loop pipeline 102a circulates fluid through turbine(s) 103 coupled to an alternator. The second closed-loop pipeline 102b circulates fluid through pneumatic motor 195. Both closed-loop pipelines are connected in parallel to the fluid propulsion means 110, which is an electrically actuated cylinder pump system. Compressor 112 maintains the loop pressure at a predefined value.

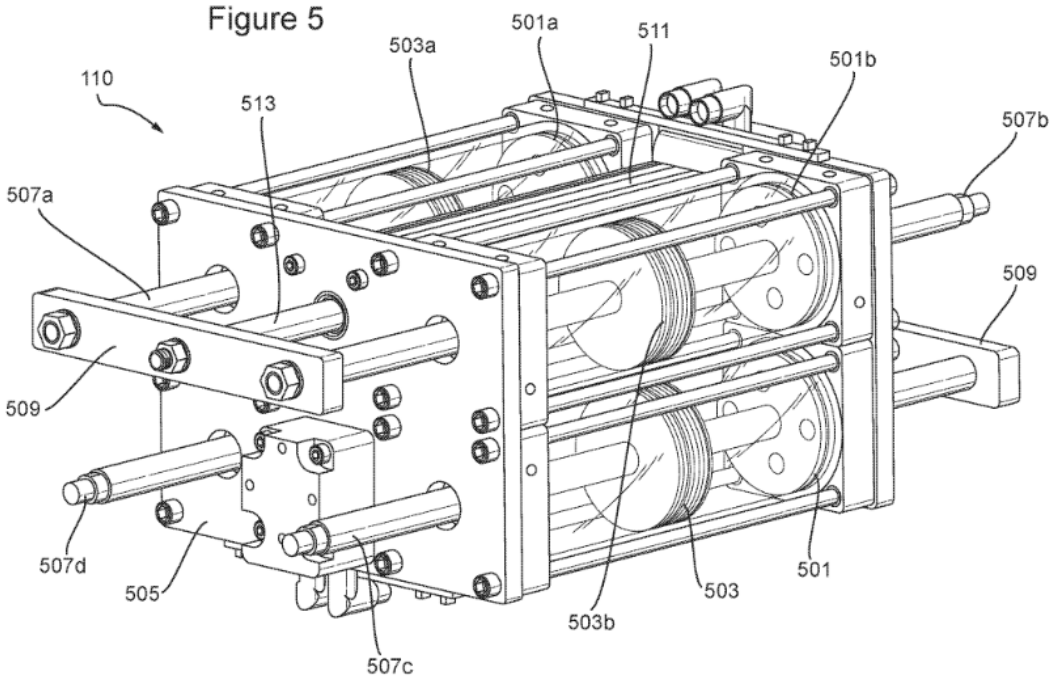
Figure 2



8 Fluid propulsion means 110 has an electrically actuated cylinder pump system and/or a screw style air-accelerator interfaced to the closed loop piping to maintain flow of the pressurised fluid (which in the embodiment is air) through both pipelines. Check valves 121a, 121b, 121c and 121d control flow of the fluid through the pipelines, including ensuring the fluid only flows in one direction through the respective pipelines.

9 In use, the high pressure compressed air in the system rotates turbine units 103 of the first closed-loop pipeline to which the alternators are attached, and powers the pneumatic motor of the second closed-loop pipeline. Electricity is generated by the flow of compressed air spinning turbine(s) 103. Low-energy air from the turbine exit(s) recirculates through the closed-loop pipeline back to the fluid propulsion means 110, helping to regenerate energy. Compressed air also flows through the second closed-loop pipeline 102b to power pneumatic motor 195.

10 Figure 5 of the PCT application shows a perspective view of fluid propulsion means 110.



11 According to the PCT application, the fluid propulsion means of Figure 5 is an electrically actuated cylinder pump system with four parallel cylinders 501a-d. Inside each cylinder is a respective piston 503a-d mounted on a respective driveshaft 507a-d. The top two cylinders 501a, 501b are coupled to a first coupling bar 509 and the bottom two cylinders 501c, 501d to a second coupling bar 509. Each coupling bar is coupled to a corresponding actuating bar 513 extending from corresponding actuator 511. Each actuator 511 may be electronically operated and is configured to reciprocally move its corresponding actuating bar in a linear motion such that it moves coupling bar 509 and thereby each piston via each respective drive shaft.

12 In the example of Figure 5, the PCT application states that the pistons of the top two cylinders are configured to reciprocate in a direction opposite to the direction of the pistons of the bottom two cylinders. According to the PCT application, this provides a more balanced system for pumping fluid.

13 The claims as originally filed comprise 24 claims. Claims 1 and 20 are the only independent claims. Claim 1 relates to the structure of the first and second closed-loop pipelines and includes a common fluid propulsion means. Claim 20 does not make specific reference to two pipelines but includes specific details of the

arrangement of the two pairs of counter-reciprocating pistons. Both claims are reproduced below.

> *1. An apparatus for generating electrical energy comprising:*
>
> *fluid circulating apparatus, suitable for circulating pressurised fluid, comprising:*
>
> *a first closed -loop pipeline and a second closed-loop pipeline, wherein the first closed-loop pipeline and the second closed-loop pipeline are coupled to a common fluid propulsion means, the fluid propulsion means comprising a first fluid intake and a first fluid output, and a second fluid intake and a second fluid output;*
>
> *wherein the first closed-loop pipeline is coupled to the first fluid output and the first fluid intake of the fluid propulsion means and comprises at least one turbine comprising a turbine fluid intake and a turbine fluid output, wherein the turbine fluid output is connected to the first fluid intake of the fluid propulsion means by the first closed-loop pipeline, and wherein the first fluid output of the fluid propulsion means is connected to the turbine fluid intake by the first closed- loop pipeline;*
>
> *at least one alternator coupled to the at least one turbine such that rotation of the at least one turbine provides rotation to the alternator which in turn generates electrical energy; and* [sic]
>
> *20. An apparatus for generating electrical energy comprising:*
>
> *fluid circulating apparatus, suitable for circulating pressurised fluid, comprising: a closed-loop pipeline arranged to connect the components of the fluid circulating apparatus in series;*
>
> *the components of the fluid circulating apparatus comprising:*
>
> *a fluid propulsion means comprising a fluid intake and a fluid output, wherein the fluid propulsion means comprises two pairs of counter-reciprocating pistons mounted in respective cylinders, with each pair of pistons arranged to be driven by a common actuator;*
>
> *at least on* [sic] *turbine comprising a turbine intake and a turbine output; wherein the turbine output is connected to the fluid intake by the closed- loop pipeline;*
>
> *wherein the fluid output of the fluid propulsion means is connected to the turbine intake by the closed-loop pipeline;* [sic]

The law

14 Neither party made any submissions in relation to the law. I will set out the relevant law in brief here.

15 Section 8 provides for the comptroller to decide entitlement to a UK patent application. Section 8(1) states:

> 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; or

(b) …

and the comptroller shall determine the question and may make such order as he thinks fit to give effect to the determination.

16 Section 12 is drafted in similar terms to section 8 and concerns entitlement to a granted patent arising from "an application made under the law of any country other than the United Kingdom or under any treaty or international convention (whether or not that application has been made)."

17 In *Yeda*[2], Lord Hoffman noted in paragraph 18 that section 7(3) is an exhaustive code for determining who is entitled to the grant of a patent. In paragraph 20 Lord Hoffman stated:

> *"The inventor is defined in section 7(3) as "the actual deviser of the invention". The word "actual" denotes a contrast with a deemed or pretended deviser of the invention; it means, as Laddie J said in* University of Southampton's Applications *[2005] RPC 220, 234, the natural person who "came up with the inventive concept." It is not enough that someone contributed to the claims, because they may include non-patentable integers derived from prior art: see* Henry Brothers (Magherafelt) Ltd v Ministry of Defence *[1997] RPC 693, 706; [1999] RPC 442. As Laddie J said in the* University of Southampton *case, the "contribution must be to the formulation of the inventive concept". Deciding upon inventorship will therefore involve assessing the evidence adduced by the parties as to the nature of the inventive concept and who contributed to it. In some cases this may be quite complex because the inventive concept is a relationship of discontinuity between the claimed invention and the prior art. Inventors themselves will often not know exactly where it lies."*

18 To decide upon inventorship, I therefore need to identify the nature of the inventive concept, and then determine who contributed to it. In identifying the inventive concept, I am mindful that the claims are not necessarily determinative.

The claimant's case

19 The claimant's case is that they devised the inventive concept of the patent applications whilst working as a consultant for the defendant. They stated in their witness statement that they came up with the idea at home on 19 January 2022. The claimant said that no consultancy agreement or agreement to assign intellectual property to the defendant was ever signed. The claimant therefore submitted that they are entitled to the patent applications.

The defendant's case

20 The defendant's case is that they devised the inventive concept before the claimant was engaged. They therefore submit that they alone are entitled to the patent applications.

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[2] *Yeda Research and Development Co Ltd v Rhone-Poulenc Rorer International Holdings Inc* [2007] UKHL 43; [2008] RPC 1

Assessment

21 I will first need to determine the inventive concept in the patent applications, and then determine who contributed to devising that inventive concept.

The inventive concept

22 The claimant, in their statement of grounds, identified the following as the key contribution of the applications:

> *"A. A fluid propulsion means comprising two pairs of counter-reciprocating pistons mounted in respective cylinders, with each pair of pistons arranged to be driven by a common actuator (referred to by both the Claimant and the Proprietor as the power cube); and/or*
>
> *B. The use of two closed loops (a direct result of the power cube)."*

23 They base this identification on a comparison of the patent applications with the contents of an earlier patent application, WO2022/003405, filed by the defendant, and on prior art listed in the search reports of the GB application and the PCT application.

24 Both parties made extensive use of the term "power cube" in their submissions. I do not understand there to be disagreement as to the meaning of the term and will use the claimant's definition above for the purposes of this decision.

25 The defendant submitted that the use of two closed loops was already conceived by the defendant before the filing of the patent applications, pointing to two of the priority applications for the earlier PCT application as evidence, and that in any case the use of two closed loops is the direct result of the use of the power cube. Whilst it may be the case that these earlier applications use two loops, I understand the claimant's case to be that the use of two loops in the present patent applications is related to the use of the power cube. The defendant also seems to take this position.

26 The defendant, in their counter-statement, did not provide clear submissions in relation to the nature of the inventive concept in the patent applications beyond the point I refer to above, and did not propose an alternative definition of the inventive concept. Rather, they based their submissions largely on the claimant's identification of the inventive concept.

27 Whilst the application does disclose other technical information, for example in relation to the functioning of the turbine, I nevertheless note that the two independent claims relate to an apparatus involving two closed loops (claim 1) and an apparatus involving a fluid propulsion means comprises two pairs of counter-reciprocating pistons mounted in respective cylinders, with each pair of pistons arranged to be driven by a common actuator (claim 20). Whilst the claims are not determinative in identifying the inventive concept for the purposes of sections 8 and 12, I nevertheless note that the features of claims 1 and 20 align with the submissions of the claimant in relation to the features of the inventive concept. It seems to me that the claimant's identification of the inventive concept is reasonable based on the disclosure in the patent applications. I however note that both parties agree that the use of two closed loops in the patent applications is a direct result of the use of the

power cube. For the purpose of these proceedings, I will therefore take the inventive concept to be the power cube concept, set out by the claimant above, and the consequential use of two closed loops.

Who devised the inventive concept

The claimant's case

28 The claimant set out briefly in their statement of grounds their account of the history of events. According to the claimant, their involvement with the defendant's company, Kurt Innovation Limited ("Kurt Innovation"), began when the company in which the claimant was employed was asked to build a cylinder for Kurt Innovation. From that contact the claimant stated that Mr Kurt approached them to be personally involved in a project to develop an electricity generation apparatus based on circulation of fluid in a closed loop. The claimant said that they were tasked with improving the flow rate of the defendant's system, which was at that point a single loop system, from 120 litres/minute to 200 litres/minute capability.

29 The claimant stated that they arrived at the idea of a fluid circulating apparatus that biomimics the heart by using two separate loops, achieving the desired flow rate.

30 The claimant annexed to their statement of grounds exhibits including sketches, messages and email correspondence between the claimant and others involved in the project, design drawings, and a written description of the power cube.

31 The claimant's assertion is that this evidence shows the defendant's original system was a single loop system, that the defendant was expecting the claimant to develop something to perform the function of the cylinder, but at higher flow rates, and that it was the claimant who originally created and developed the idea of the power cube and shared his designs with others involved in the project.

32 The claimant also submitted that no consultancy agreement was ever signed, nor any agreement to assign intellectual property from himself to the defendant, and that he was not an employee of either Kurt Innovation or the defendant. The claimant therefore submitted that they are entitled to the GB and PCT applications, either alone or jointly with the defendant.

The defendant's case

33 The defendant's case is that they conceived of the idea for the power cube before the claimant's involvement with the defendant, and the idea was based on using commercially available electrical actuators and pneumatic cylinders, with actuators coupled to a common yoke also commercially available. The defendant included in their counter-statement emails and some images of the commercially available product to evidence this point.

34 The defendant stated that, when he saw the design for the commercial product, he realised that it was not possible to use the pull-push movement of the two piston cylinders as stated in the hydraulic system of the earlier application. He stated that he already wanted to use at least two pistons in the new design, but also wanted to obtain better performance in terms of air volume and therefore decided to use four

pistons, i.e. two sets of the commercially available actuators, with a design developed by a Kurt Innovation employee named Godson Paul under the guidance of Mr Kurt.

35 The defendant submitted that it was clear that Godson Paul had already conceived of using an electric actuator coupled via a common yoke to two pneumatic cylinders for use in a closed loop system. They state that Godson Paul had been working on a design that involved the use of two actuators and four cylinders, which he shared with Mr Kurt in an email dated 28 January 2022, the email included in the counter-statement.

36 The defendant states that, on his instruction, Mr Stolt asked their patent attorneys to draft a patent application and, in the materials provided by Mr Stolt for use by the attorneys, it is stated that only Mr Kurt be listed as inventor. The defendant submits that the claimant therefore acknowledged that the claimant did not contribute any inventive activity at this time.

37 The defendant commented that some of the evidence provided by the claimant with their statement of grounds has no date, and, in some cases, no evidence of author, and their contents cannot therefore be relied on as evidence of anything having been done by Mr Stolt prior to the filing date of the patent applications in question. The defendant also stated that no specific flow rate is referred to in the patent applications. They made other specific comments in relation to the sketches annexed to the claimant's statement of grounds, stating that one of the sketches was almost identical to a publicly available design. They stated that any invention would have to relate to how the fluid propulsion means could be integrated to the closed loop apparatus, which they argued would make Godson Paul the inventor.

The claimant's further evidence

38 The claimant filed their evidence in chief on 14 March 2025. This evidence comprises a witness statement by the claimant, Mr Stolt, and three exhibits, two of which relate to email exchanges between Mr Stolt and Godson Paul, and the third to a page of a document entitled "Energy Generation Project (Compressed Air Energy Project)".

39 Mr Stolt, in his witness statement, sets out a more detailed narrative as to how he became involved with Mr Kurt's project and how, in working with Kurt Innovation employee Godson Paul, he devised the power cube concept. Specifically, his evidence is that he suggested swapping hydraulic power for a high-tech electrical actuator. He comments that the Kurt Innovation team had received a picture of an electrical actuator with a yoke attached from a company called Olsen, but for some reason had not continued with this type of design.

40 His evidence is that, in December 2021, emails between himself and Godson Paul (one exhibited with the defendant's counter-statement, and another exhibited with Mr Stolt's witness statement) related to consideration of different cylinders, but at that time no invention had been made.

41 Mr Stolt's witness statement states that, following a meeting set up on Friday 11 January 2022 to understand more about a specific commercially available actuator

called an Exlar actuator, his first thought was to use one electrical actuator to drive two cylinders side-by-side, and then his thoughts progressed to an assembly containing two actuators and four cylinders. He referenced WhatsApp® messages dated 19-20 January 2022 and an email dated 19 January 2022, exhibited with the statement of grounds, in support of this. Mr Stolt's evidence in his witness statement is that the idea was born at his dining table on 19 January 2022, where some comments from his wife concerning biomimicry inspired him to realise the final design.

42 Mr Stolt's evidence in his witness statement is that he then instructed Godson Paul with specific instructions relating to design details, and then asked Godson Paul to email Mr Kurt with details of the design. This is, according to Mr Stolt, the email referred to by the defendant in their counter-statement.

43 Mr Stolt asserts that he subsequently instructed Godson Paul to *"rotate the top part of the assembly to face the opposite way, thus becoming contra actuating and balanced*", referring to an exhibited email dated 26 February 2022 in support of this. According to Mr Stolt's witness statement, it was after this point that he began to use the name "power cube", and he created a video which, when played to Mr Kurt, prompted Mr Kurt to say "*Stop everything, write patent straight away. This is reality. Don't worry about problems as I have the golden key*."

Analysis

44 It is apparent that the parties' accounts of events are inconsistent with each other. The claimant says that they instructed Godson Paul in relation to the inventive concept, and the defendant that Godson Paul worked under their guidance in developing the power cube. I note however that there is no witness statement from Mr Kurt, and only limited evidence in the counter-statement. The emails provided by both parties do not in my view settle the matter. Mr Stolt's account of events in his witness statement is however consistent with the documentary evidence in the exhibited emails. He acknowledges the use of commercial actuators and his explanation of how he instructed Godson Paul in relation to his idea for the power cube is not challenged by the email evidence. Moreover, the WhatsApp conversation dated 19-20 January 2022 adds weight to the claimant's case that he suggested the four-piston design to Paul Godson, rather than the other way round. Nothing in the documentary evidence specifically suggests that Mr Kurt invented the power cube, although nor does it exclude the possibility.

45 The defendant, in their counter-statement, suggested that, in providing the patent attorney materials in which it was stated that Mr Kurt was to be listed as inventor, the claimant acknowledged that they did not contribute any inventive activity at that time. Mr Stolt's witness statement however explains that this was a cut and paste of a document used before his time, and he was instructed by Mr Kurt that Mr Kurt had to be named as inventor regardless of the correct legal situation. I do not find this evidence to be conclusive as to who the defendant, or for that matter anyone else, may have believed the inventor to be at that time, never mind indicative of who actually devised the inventive concept. I note that this is consistent with Jacob LJ's

finding in *IDA*[3], where he held at paragraph 22 that "*the views held at the time as to who should own what, in the absence of any agreement, do not assist.*"

46 The withdrawal of the defendant from these proceedings before the filing of their evidence leaves Mr Stolt's evidence in his witness statement largely unchallenged. In my view the evidence provided by the defendant in their counter-statement is not sufficient for me to conclude, on the basis of this evidence alone, that Mr Stolt is not the inventor. Nor does it demonstrate that Mr Kurt was an inventor. For example, the included emails and figures do not mention any inventive activity by Mr Kurt, whereas in contrast they do suggest that Mr Stolt was at least involved in developing the power cube.

47 Given these points, and that the claimant's evidence is consistent with the documentary evidence and that the defendant has withdrawn from proceedings, I accept Mr Stolt's evidence as the more likely account as to how the invention was devised and by whom. I therefore conclude that Mr Stolt devised the inventive concept in the patent applications.

48 The claimant submitted that they had not assigned any intellectual property rights to the defendant and was not an employee of the defendant, and the defendant did not dispute this. I therefore conclude that, as sole inventor of the inventive concept in the patent applications, Mr Stolt is entitled to the patent applications.

Conclusion and Order

49 I have found that Mr Stolt devised the inventive concept in the patent applications and is thereby solely entitled to the patent applications. I therefore order that UK patent application GB2207702.8 and PCT patent application PCT/GB2023/051361 should list Mr Stolt as sole inventor and should proceed solely in the name of Mr Stolt.

Costs

50 The claimant has asked for costs. Bearing in mind that, in the preliminary hearing on extending the period for filing the counter-statement, the matter of costs was deferred, I invite the parties' submissions on costs.

Appeal

51 Any appeal must be lodged within 28 days after the date of this decision.

Dr B MICKLEWRIGHT
Deputy Director, acting for the Comptroller

[3] *IDA Ltd v The University of Southampton* [2006] EWCA Civ 145; [2006] RPC 21