

**IN THE BOARD OF APPEAL OF THE AFRICAN REGIONAL INTELLECTUAL
PROPERTY ORGANIZATION**



**IN THE MATTER OF APPEAL AGAINST THE DECISION OF THE OFFICE IN
PATENT APPLICATION NUMBER AP/P/2027/009850**

BETWEEN

PLEWS DENNIS J, THE APPELLANT

VERSUS

**THE AFRICAN REGIONAL INTELLECTUAL PROPERTY ORGANIZATION
(ARIPO), THE RESPONDENT**

Counsel for the Appellant: William Diarra Esq.

Representing the Respondent: Director, Intellectual Property

RULING

Dated: 15 May 2025

FACTUAL BACKGROUND

The background facts giving rise to this appeal are as follows:

1. On 3 April 2017, the Appellant filed a request for the grant of a patent with the Respondent for an invention titled ‘propulsion system’. After a substantive examination of the application, the Respondent issued Form 20, dated 24 April 2021, refusing to grant the patent. The Respondent’s grounds for refusal were captured in Addendum to Form 18 dated 1 June 2020 that “*the examination*

revealed that the application does not meet the requirement of Sections 2bis and 3(10) of the Harare Protocol with respect to enablement, claim clarity, novelty, inventive step, and industrial applicability.”

2. The Appellant responded via Form 19, dated May 21, 2021, asking the Respondent to reconsider the refusal based on the new set of claims submitted. The Respondent replied to the Appellant in a letter dated September 29, 2023, stating that the Office action on the application is closed following the issuance of Form 20.
3. On 20 December 2023, Coghlan, Welsh, and Guest filed a notice of appeal in respect of patent application number AP/P/2017/009850, arguing that the examiner erred in not considering the points and documents outlined in their memorandum, which was attached to the notice of appeal.

THE APPELLANT’S CASE

4. The Appellant pleaded and argued four (4) grounds of appeal, namely;
 - i. Clear and complete disclosure;
 - ii. clarity/full support Section 2bis(2) of the Harare Protocol;
 - iii. other observations, and
 - iv. patentability and inventive step.
5. On the issue of clear and complete disclosure, the Appellant argued that the Respondent did not consider “Ex Parte Dennis Plews 2014 WL 651394,” which was decided by the US Patent Trial and Appeal Board and held that there are external forces in the claimed invention and that it fully complies with all scientific principles.
6. The Appellant shared two YouTube links to a working prototype of the invention, which shows how the device converts rotatory motion into linear motion. The Respondent argued that it is not easy to tell whether the prototype’s minimal displacement is due to vibrations or uneven surfaces. This does not prove that the device can propel a vehicle. The alleged propulsion effect contravenes the conservation of momentum expressed in Newton’s third law, meaning that if a closed system is not affected by external forces, its total linear momentum cannot change.

7. Regarding the issue of clarity and full support, the Appellant submitted that claims 5 and 7 have been cancelled.
8. On other observations, the Appellant submitted that claim 1 has been accordingly amended to highlight the novel features, in accordance with the Examiner's request that it be rewritten in a two-part format.
9. On the patentability and inventive step issue, the Appellant argued that the use of thrust masses with opposing rollers or the use of springs within the radial slots makes the invention patentable and that a similar objection was overcome in the EPO.
10. At the hearing of this appeal before the Board of Appeal on 10 October 2024, counsel for the Appellant argued that the appeal is premised on two main issues. The first issue is whether or not the patent application sufficiently discloses the invention such that someone skilled in the art would be capable of carrying it out. It was submitted that the Respondent's objection was that the patent application did not sufficiently disclose the invention so that somebody skilled in the art could replicate it, coupled with the finding that it did not have industrial applicability.
11. The Appellant argued that this submission by the Respondent was erroneous because an application with a similar design and similar principles relating to function was applied in the United States Patent and Trademarks Office. There was an objection in the same manner as that raised in this present application that it did not disclose the invention sufficiently. The applicant appealed to the US Patent Trials and Appeals Board, which held that the USPTO's reasoning was erroneous because it was based on the assumption that the system that was presented in the application, which works on the same principles as the invention in this particular case, was a closed system. It was also established that no external forces were being exerted on it such that it would accord with the principles of the laws of physics, and as such, the invention did have an external force acting on it. The external force was the motor, which forms part of the system, and that the motor allows the system to function. The Appellant submitted that, based on this finding, the U.S. Patent Trials and Appeals Board determined that there was sufficient disclosure of the invention to enable replication.

12. The Appellant argued that the Respondent's rejection is based on a similar rejection by the European Patent Office, which is currently on appeal.
13. The Appellant submitted before the Board of Appeal that it provided links in the notice of appeal, which demonstrate how the device actually functions and that the videos demonstrate the invention's industrial applicability. The Appellant argued that section 2bis(1)(b) of the Harare Protocol, which required an application to disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, has therefore been met.
14. On the issue of patentability, the Appellant argued that the question that arises is whether the invention incorporates features that someone with knowledge of the art would consider new or novel. They submitted that the invention does have those features, and the elements of this invention that make it novel are the components referred to as thrust masses, the opposing rollers, and the use of springs in radial slots.
15. They argued that these features had not been cited in any prior art by the office in its examination report. The Appellant's submission was that these features make the invention novel in the art and confer an inventive step. The Appellant argued that these features were also cited in the patent application before the European Patent Office, which accepted these as being an inventive step that sets this invention apart from the state of the art. It is, therefore, on this basis that the Appellant submitted that the invention is, in fact, patentable and should be granted a patent.
16. Finally, the Appellant submitted that in response to the Respondent's request to recast claim 1 to express the novelty of the invention's novelty, they had amended the claim to emphasize the new features. The Appellant's hope was for the Board of Appeal to grant the requested relief.

THE RESPONDENT'S SUBMISSION

17. The Respondent addressed the issues raised by the Appellant in the order they were argued and presented. Regarding "clear and complete disclosure," the Respondent argued that the application does not satisfy the requirements of sections 3(10)(a) and 2bis(1)(a) of the Harare Protocol (2020 Edition) because the means of industrially

utilizing the claimed invention that was disclosed cannot be replicated by an average practitioner of the field and/or are inherently impossible, as they would violate well-established physical laws.

18. The Respondent argued that they thoroughly reviewed “Ex Parte Dennis Plews 2014 WL 651394, decided by the US Patent Trial and Appeal Board, and established that there is a variation in the requirements for disclosure and industrial applicability by USPTO and ARIPO. The Respondent noted that the ARIPO requirements are fairly close to those of the EPO.
19. The Respondent submitted that they gravitated towards the reasoning that the USPTO examiner initially had, as well as the EPO examiner, as they found that the application discloses the propulsion device based on the imbalance of the internal forces that perform in a closed system. It construed the closed system as the entirety of the disclosed equipment, including the power source for the motor.
20. The Respondent argued that from the decision of the USPTO Board of Appeal, there was no technical input from the examiner to explain why they believed that the system accords with the laws of physics. Again, it was observed that in the final notes of allowance by the USPTO, there is no technical reason for allowance other than the fact that a previous application on the same subject matter was allowed.
21. According to the Respondent, the application discloses a propulsion device based on an imbalance of the internal forces that perform as a closed system (construed as the entirety of the disclosed equipment, including the power source for the motor) and does not have any interaction with any external element. However, the alleged propulsion effect contravenes the conservation of momentum expressed in Newton's third law, meaning that if a closed system is not affected by external forces, its total linear momentum cannot change.
22. The Respondent further submitted that the thrust masses and the impulse ramps are elements that form part of the propulsion device, and they would displace together with the device if it could be propelled. Therefore, the propulsion device, when viewed as a whole, does not have any interaction with its surroundings that would enable it to propel itself, since all momentum exchanges occur internally within the device. Therefore, it could not generate propulsion without violating the principles of *actio-reactio* and momentum conservation.

23. The Respondent argued that from the first YouTube video, it is not immediately apparent whether the minimal displacement of the prototype is due to vibrations or unevenness of the surface. It does not prove that the device would be capable of propelling a vehicle as alleged in the present application. Unfortunately, the second video could not be accessed.
24. The Respondent argued that the propulsion device, as disclosed, did not interact with its surroundings in a way that would enable it to propel itself. Since all momentum exchanges are internal to the device, it cannot generate propulsion without violating the principles of action and reaction or momentum conservation. It is indeed possible and expected that the rotation of the motor within the structure would cause vibrations similar to those seen in the first video, but not actual propulsion of the device as claimed. The Respondent, therefore, reiterated the points in their submission and argued that the Appellant was not entitled to the reliefs sought in the notice of appeal.
25. The Respondent further argued that the device for converting rotary motion into forward linear motion in claims 1 to 6 does not appear to have industrial applicability under the Harare Protocol. As a result, the application lacked sufficiency of disclosure according to Section 2bis(1)(a).
26. Regarding claim clarity and full support under section 2bis of the Harare Protocol, the Respondent noted that the claims objected to have been withdrawn and did not provide any further comments.
27. In other observations, the Respondent acknowledged that two features were moved from the character to the header of a claim. However, the total sum of all features claimed in claim 1 remained the same throughout the process. The Respondent pointed out that the rejection was based on substantive requirements of enablement and industrial applicability and that the Appellant failed to explain how rearranging these features addressed the objections related to enablement and industrial applicability.
28. In response to the argument regarding patentability and inventive step, the Respondent stated that they are unaware of any further analysis conducted by the EPO on “patentability” and “inventive step” after it was determined that the claimed

invention was not industrially applicable or disclosed in an enabling manner. The Respondent also indicated that on July 11, 2024, the examining division either refused the application or confirmed an earlier refusal after oral proceedings.

29. The Respondent argued that it is not possible to derive any claim exhibiting inventive step from the original specification given that the essential features (including the preferred embodiment in the present specification) are all anticipated by the citation US 2008/0121071 A1 (US11/514,405 or WO 2008/027296 A2) as published on 29.05.2008 before the priority date of the present application. The Respondent noted that the text of the abstract and paragraphs 1 to 60 of D1, as well as drawings and figures 1 to 10, are identical applications, meaning those features are anticipated.
30. The Respondent submitted that differences between non-essential features presented as “Alternative Embodiments” on page 13 of the description typically represent obvious design alternatives that do not require any inventive activity to arrive at by an average skilled practitioner of the art. Such features are typically not considered to be involving inventive step; yet they appear to be the only distinction between the present application and the above citation.
31. The Respondent further submitted that patentability under the Harare Protocol requires industrial applicability and enabling disclosure, in addition to novelty and inventive steps, which the present application lacks, and argued that the Appeal against the decision of the Office be dismissed.

POSITION OF THE LAW UNDER THE HARARE PROTOCOL ON PATENTS AND INDUSTRIAL DESIGNS (2020 Edition)

It is vital at this juncture to restate the applicable legal instruments on patentability. We recite the key provisions for clarity.

32. Section 2bis (1)(b) of the Harare Protocol (2020) states as follows:

(1) An ARIPO patent application:

[...]

(b) Shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

33. Section 3 (10) (a) states that ARIPO patents can be granted for any inventions across all fields of technology, as long as they are new, involve an inventive step, and are capable of industrial application. This means that to qualify for a patent, an invention must be new, involve an inventive step, and be industrially applicable.
34. Section 3 (10)(e) states that “an invention shall be considered as involving an inventive step if, having regard to the prior art, it is not obvious to a person skilled in the art.”
35. The Board of Appeal considered the main issues of “clear and complete disclosure” and “patentability and inventive step” that were argued by the Parties.
36. On “clear and complete disclosure” requirement, the board considered the judgment in “Ex Parte Dennis Plews 2014 WL 651394” which held that per the Patent Office practice, “a specification which contains a disclosure of utility which corresponds in scope to the subject matter sought to be patented must be taken as sufficient to satisfy the utility requirement of 35 U.S.C. § 101”.
37. This is, however, at variance with Section 2bis (1)(b) of the Harare Protocol (2020 Edition) that requires the Applicant to “disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art”.
38. This means that the judgment by the US Patent Trial and Appeal Board in Ex Parte Dennis Plews 2014 WL 651394 is of persuasive authority because of the differences in the standard of clear and complete disclosure.
39. It is therefore the Board’s view that the application does not meet the requirements of Sections 3(10)(a) and 2bis(1)(b) of the Harare Protocol because the disclosed means of industrially utilizing the claimed invention is not replicable by an average practitioner of the art or is inherently impossible as it would be contrary to well-established physical laws.
40. Given that industrial applicability requirements of Section 3(10)(f) (like Article 57 of the EPC) are that “...it can be made or utilized in any kind of industry, including

agriculture”. This implies that merely converting rotary to linear motion, which is not practical for any purpose, is inadequate under the Harare Protocol.

41. It was also observed that the requirement for enabling disclosure, which makes the invention workable for anyone reading the specification, is sometimes linked to usefulness or industrial applicability. The Harare Protocol does not consider an invention useful if it cannot perform any meaningful task in industry. This differs from USPTO practice.
42. On the issue of “patentability and inventive step”, Section 3(10)(a) of the Harare Protocol (2020 Edition) states that ARIPO patents shall be granted for any inventions, in all fields of technology, provided that they are *new*, *involve an inventive step* and are *susceptible of industrial application*. Patentability under the Protocol requires that all the stated conditions be satisfied. The appellant has not been able to demonstrate that the application has an inventive step and is susceptible to industrial application.
43. Under the Harare Protocol, an invention is not useful where it cannot perform any meaningful task in the industry. The Appellant has not been able to demonstrate the usefulness of this invention in its argument. We therefore conclude that the application lacks *inventive step*, industrial applicability, and an enabling disclosure, which are critical for the grant of a patent.

DISPOSITION

Having carefully considered the technical arguments by both parties; the Board of Appeal makes the following determination:

44. The Board of Appeal finds that the application lacks clear and sufficient disclosure for it to be carried out by a person skilled in the art.
45. Furthermore, the application lacks an inventive step and industrial applicability, which are conditions for the grant of a patent.

46. Accordingly, the appeal fails, and the Board of Appeal upholds the Respondent's refusal of the application.



Chairperson, Board of Appeal
(Dr. Gift Manyatera)



Member, Board of Appeal
(Ms. Jamus Bannah)



Member, Board of Appeal
(Prof. Saudin J. Mwakaje)



Member, Board of Appeal
(Ms. Purnima Maudhoo)



Member, Board of Appeal
(Mr. Ibrahim Sam Johnson)

Coghlán, Welsh & Guest, Appellant's legal practitioners