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Datasheet for the decision of 23 March 2023

Case Number: T 1067/21 - 3.2.01

Application Number: 13857169.0

Publication Number: 2922423

IPC: A24C1/00, C12M1/34, G06F19/00

Language of the proceedings: EN

Title of invention:
SYSTEM AND METHOD FOR AUTOMATIC PLANT TISSUE SAMPLING

Patent Proprietor:
Fraunhofer USA, Inc.

Opponent:
BOCK Bio Science GmbH

Headword:

Relevant legal provisions:
EPC Art. 52(1), 54, 56, 111(1)
RPBA 2020 Art. 11, 13(2), 15a(1)

Keyword:

Novelty - main request (yes)
Appeal decision - remittal to the department of first instance (yes)
Remittal - special reasons for remittal (yes)
Amendment after summons - exceptional circumstances (no) - taken into account (no) - cogent reasons (no)
Discretional decision of the Board to hold oral proceedings by videoconference

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 1067/21 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 23 March 2023

Appellant: (Patent Proprietor)	Fraunhofer USA, Inc. 800 North Lindbergh Blvd. St. Louis, MO 63167 (US)
Representative:	dompatent von Kreisler Selting Werner - Partnerschaft von Patent- und Rechtsanwälten mbB Deichmannhaus am Dom Bahnhofsvorplatz 1 50667 Köln (DE)
Appellant: (Opponent)	BOCK Bio Science GmbH Butendieker Landstraße 49 A 28357 Bremen (DE)
Representative:	Grünecker Patent- und Rechtsanwälte PartG mbB Leopoldstraße 4 80802 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 30 April 2021 concerning maintenance of the European Patent No. 2922423 in amended form.**

Composition of the Board:

Chairman	G. Pricolo
Members:	V. Vinci
	O. Loizou

Summary of Facts and Submissions

I. The appeals filed by the appellant 1 (patent proprietor) and appellant 2 (opponent) are directed against the interlocutory decision of the opposition division to maintain the European patent No. 2 922 423 in amended form.

In its decision the opposition division held that the ground for opposition pursuant to Article 100(a) in combination with Articles 52(1) and 54 EPC was prejudicial to the maintenance of the patent as granted in view of lack of novelty of the subject-matter of independent claim 5, and decided to maintain the patent in amended form according to the auxiliary request 1 filed at the oral proceedings. Novelty and inventive step within the meaning of Articles 52(1), 54 and 56 EPC were assessed, among other documents, in view of the following prior art:

D1: US 5 382 268
D2: WO 92/03913
D3: US 2010/0044356 A1
D4: Robert C. Day et al., Be more specific! Laser-assisted micro-dissection of plant cells, TRENDS in Plant Science, Vol. 10 No. 8, August 2005
D5: US 2012/0288854 A1
D8: US 5 439 490
D9: Kerry Ramsay et al., Laser capture micro-dissection: a novel approach to microanalysis of plant-microbe interactions, Molecular Plant Pathology (2006) 7(5),429-435
D10: WO 01/42796 A1

II. With a communication under Article 15(1) RPBA dated 11 July 2022 the Board informed the parties of its preliminary, non-binding assessment of the case.

Oral proceedings pursuant to Article 116 EPC were held before the Board on 23 March 2023 by videoconference.

III. The appellant 1 (patent proprietor) requested that the decision under appeal be set aside and the case be remitted to the opposition division for further prosecution based on the patent as granted after novelty of claim 5 has been established (main request), or in the alternative, that the patent be maintained in amended form according to the auxiliary request 1 (i.e. the appeal of the opponent be dismissed) or auxiliary request 2, both requests filed during the oral proceedings before the opposition division or that the patent be maintained in amended form according to one of the auxiliary requests 3 to 7 filed as auxiliary requests 1 to 5 on 21.01.2021.

The appellant 2 (opponent) requested that the decision under appeal be set aside and that the patent be revoked in its entirety and that the appeal fee be reimbursed due to a substantial procedural violation.

They also requested a remittal to the first instance conditionally if claims 1, 3 and 5 of the main request are to be found novel and claims 1, 3, 11 and 14 of the main request to be found inventive.

IV. Independent claim 1 of the patent as granted reads as follows:

"An automatic plant tissue sampling system comprising:

a plant handler configured to transport one or more plants from a first location to a second location;

an imager configured to image a plant moved by the plant handler to identify a sampling location;
a processor in communication with the imager and configured to receive an image of the plant and further configured to select a location on the plant to sample;

a sampler including a laser cutter and configured to remove a tissue sample from the sampling location of the plant selected by the processor; and

a collection vessel configured to receive tissue samples."

Independent claim 3 of the patent as granted reads as follows:

"A method for sampling plant tissue, the method comprising:

transporting one or more plants from a first location to a second location with a plant handler, the second location proximate to an imager;

imaging a plant with an imager to identify a sampling location;

removing a tissue sample from the sampling location of the plant with a laser cutter; and

storing the tissue sample in a collection vessel, wherein at least the step of imaging a plant and the step of removing a tissue sample are automated."

Independent claim 5 of the patent as granted reads as follows:

"An automatic plant sampling system for automatically sampling plant tissue of an individual plant selected from a group of one or more plants collectively conveyed to the automatic plant sampling system, the automatic plant sampling system comprising:

a frame assembly having a first axis, a second axis orthogonal to the first axis, and a third axis orthogonal to the first axis and the second axis;

a plant handling system coupled to the frame assembly so that a portion of the plant handling system moves relative to the frame assembly, the plant handling system configured to select the individual plant from the one or more plants, transport the individual plant to a sampling system for sampling, and transport the individual plant from the sampling system to a post sampling location;

the sampling system coupled to the frame assembly proximate to the plant handling system, the sampling system configured to determine a suitable sampling location of the individual plant, sample a portion of plant tissue from the sampling location to create a tissue sample, and transport the tissue sample to a storage system;

the storage system coupled to the frame assembly proximate to the sampling system, the storage system configured to associate the tissue sample with the individual plant and maintain the tissue sample in a

suitable condition for testing;

a controls system communicatively coupled to the plant handling system, the sampling system, and the storage system, the controls system automatically operable to coordinate movement and operation of the plant handling system, the sampling system, and the storage system for sampling of the individual plant;

a plug handler mechanically coupled to the frame assembly, said plug handler further configured to identify the individual plant of the one or more plants and secure the individual plant for movement relative to the one or more plants;

a tray table mechanically coupled to the frame assembly, said tray table configured to collectively receive the one or more plants; and a popper mechanically coupled to the frame assembly,

wherein the tray table receives the one or more plants and the controls system operates to move the tray table, the popper, and the plug handler to move each device proximate to the individual plant of the one or more plants, the popper engages the individual plant to move the plant along the third axis into the plug handler, the plug handler secures the individual plant and moves along the first axis to transport the individual plant to the sampling system."

Independent claim 11 of the patent as granted reads as follows*:*

"An apparatus for selecting, sampling, and storing a tissue sample from an individual plant of a group of one or more plants, the apparatus comprising:

a frame assembly having a first axis, a second axis orthogonal to the first axis, and a third axis orthogonal to the first axis and the second axis;
a plant handler mounted to the frame assembly and having a plurality of grippers to manipulate the individual plant of the one or more plants to collect a tissue sample of the individual plant;

a sampler including a laser cutter and mounted to the frame assembly and having a sample identifier and a tissue sample collection device to identify, collect, and store the tissue sample of the individual plant, the plant handler configured to orient the plant within the sampler; and

a controls system communicatively coupled to the plant handler and the sampler, the controls system configured to coordinate movement and operation of the plant handler and the sampler."

Independent claim 14 of the patent as granted reads as follows*:*

"A method for automatically sampling individual plants from a group of one or more plants, the method comprising:

(a) loading flats containing a plurality of plants into an automatic sampling device having a plant handling system and a plant sampling system, each plant having a unique identifier;

(b) selecting an individual plant from the tray and securing the individual plant in the plant handling system;

(c) moving the individual plant with the plant handling system to the plant sampling system;

(d) securing the individual plant with the plant sampling system and releasing the individual plant with the plant handling system;

(e) identifying at least one of a color, size, and shape of the individual plant with the plant sampling system;

(f) determining a sampling location of the individual plant based on at least one of the color, size, and shape of the individual plant;

(g) securing the individual plant for sampling with the plant sampling system;

(h) isolating a tissue sample from the individual plant with the plant sampling system and cutting the sample location with a laser cutting apparatus to remove the tissue sample from the individual plant;

(i) transporting the tissue sample to a collection vessel with the plant sampling system and associating the tissue sample with the identifier of the individual plant; and

(j) storing the tissue sample for testing and returning the individual plant for further cultivation with the plant handling system."

Reasons for the Decision

APPEAL OF THE PATENT PROPRIETOR

Main Request: Patent as granted

Novelty: Articles 52(1) and 54 EPC

1. The main request meets the requirements of Articles 52(1) and 54 EPC.

Independent claim 5 in view of D5

1.1 Contrary to the conclusion of the opposition division, the Board finds that the subject-matter of independent claim 5 of the patent as granted is novel over D5.

1.2 The opposition division was of the opinion that the combination of sub-systems and devices of the automatic seed sampling system disclosed in D5 was configured to also handle and sample individual plants and not only seeds contrary to the allegation of the appellant 1 (patent proprietor), and therefore prejudicial to the novelty of claim 5 as granted.

1.3 The board disagrees with the reasoning and conclusions of the opposition division, also supported by the appellant 2 (opponent) in their reply to the statement of grounds of appeal of the appellant 1 (patent proprietor), for the following reasons:

The expression *"configured to"* is used several times in claim 5 as granted to functionally define various sub-systems and devices which together make up the claimed automatic plant tissue sampling system, namely the *"plant handling system"* , the *"sampling system"*, the

"storage system", the *"plug handler"*, the *"tray table"* and the *"popper"*. The Board considers that the expression *"configured to"* referred to certain technical means is commonly understood by the person skilled in the art as not only meaning that this means is merely potentially suitable for carrying out the specified functionality, but rather that it is designed, dimensioned and controlled by means provided in an associated control system, such as a dedicated software, in such a way to exactly carry out the indicated functionality, i.e. in the case of claim 5 to transport, handle and sample individual plants. The Board, in agreement with the appellant 1 (patent proprietor), is convinced that this is not the case of all the corresponding sub-systems and devices provided in the automatic seed sampling system of D5 which are designed, dimensioned and controlled to transport, handle and sample seeds and, as such, cannot constructionally and functionally equate with the corresponding sub-systems and devices of the system of claim 5 which are inherently designed, dimensioned and controlled to transport, handle and sample individual plants. In fact plants have a weight, dimensions, shapes and a structure generally well distinguished from the corresponding characteristics of seeds, at least in the common meaning conferred to these terms.

1.4 At the appeal oral proceedings the appellant 2 (opponent) pointed out in this respect that in nature seed weight could range from 0.0001 mg in orchid seeds to 42 kg in double coconuts, and that consequently at least certain kind of seeds could in principle have weight and dimension ranges overlapping with those of plants. This assertion was not contested by the appellant 1 (patent proprietor). The appellant 2 (opponent) put forward that as no limitation regarding

the size, the weight and the shape of the seeds which could be handled and sampled by the known automatic seed sampling system was indicated in D5, the person skilled in the art could assume that its subsystems and devices were also configured to handle and sample seeds of a sort comparable in size and weight with individual plants as required by claim 5 as granted.

1.5 Also this argument is not convincing for the following reasons:

As put forward by the appellant 1 (patent proprietor) both in writing and during the oral proceedings, the structural features of at least certain subsystems of the automatic seed sampling system of D5 are clearly configured to only handle items having a round-like shape, comparatively small or medium size and a granular and compact structure, i.e. seeds in the meaning that is commonly conferred to this term. The person skilled in the art, looking at the specific constructional solutions adopted for the automatic seed sampling system of D5, in particular for the conveyor and transport means at the seed entry location (see Figures 3A-3C, 4A and 4B of D5) comprising, among others, the seed hopper (104), the separating wheel (108) with its recess ports (118), the collector (114), the first and second transfer tubes (126,162), the stack (150), the hopper (166), the transport carousel (208) and the RVC devices (212), readily realizes that these components can only reliably and efficiently transfer and handle a granular material with a compact structure and a somehow regular shape and not individual plants which do not generally show these characteristics.

1.6 The opposition division and the appellant 2 (opponent) inferred from the passage in column 14, lines 1 to 4 of the contested patent reading:

"The tissue samples may be taken from any desired location of the plant, for example, from a seed, root, stem, inner stem, stalk or leaf, or the like ."

that claim 5, although being directed to an automatic plant tissue sampling system, should be construed broadly to also cover a combination of sub-systems and devices configured to automatically handle and sample seeds of those disclosed in D5 which was thus prejudicial to novelty.

1.7 Also this argument is not convincing because, as correctly argued by the appellant 1 (patent proprietor), the passage above only says that the tissue sample to be processed may be removed from any desired location/part of the plant, for example from a seed. This means that the person skilled in the art may infer at the most from the cited passage of the patent that the *"sampling system"* and the *"storage system"* according to claim 5 can be designed, dimensioned and controlled, i.e. configured, in such a way to also sample and store seeds taken from a selected plant previously loaded onto the claimed automatic plant tissue sampling system and transported to the sampling location. However, as the wording of claim 5 leaves no doubt that the items initially loaded on the tray table and handled forward, i.e. selected and transported by the claimed handling system, are plants and not seeds, the remaining sub-systems and devices defined in claim 5 and located upstream of the *"sampling system"*, namely the *"tray table"*, the *"plant handling system"*, the *"plug handler"*, and the *"popper"*, are designed,

dimensioned and controlled in such a manner to interact with plants and not with seeds. This inherently imposes clear constructional and functional limitations to the claimed sub-systems and devices with respect to the corresponding sub-systems and devices of the system of D5.

1.8 In conclusion, the Board does not confirm the negative novelty assessment of the subject-matter of claim 5 in view of document D5 of the opposition division.

Admittance of the novelty attack to claim 5 based on D2

1.9 With letter dated 10 February 2023 the appellant 2 (opponent) objected for the first time to novelty of the subject-matter of independent claim 5 as granted in view of document D2. The appellant 1 (patent proprietor) requested not to admit this new arguments as late filed.

1.10 The Board did not admit said novelty attack regarding the subject-matter of claim 5 of the main request based on D2 into the appeal proceedings.

1.11 The Board observes that this new line of novelty attack was submitted after issuing the summons to oral proceedings. The provisions of Article 13(2) RPBA thus apply. The appellant 2 (opponent) pointed out that in the communication pursuant to Article 15(1) RPBA issued by the Board on 11 July 2022, the subject-matter of claim 5 was preliminarily deemed to be novel over D5 for the first time in the entire opposition proceedings. They argued that this unexpected change of opinion with respect to the conclusions of the opposition division amounted to exceptional

circumstances within the meaning of Article 13(2) RPBA which rendered necessary and justified the submission of this new novelty attack as a reaction to the surprising preliminary position expressed by the Board. The appellant 2 (opponent) also observed that it was not necessary to file any new additional line of novelty attack during the first instance proceedings since the opposition division, both in the preliminary opinion and in the course of the oral proceedings, considered document D5 prejudicial to novelty of the subject-matter of claim 5 as granted.

1.12 The arguments submitted by the appellant 2 (opponent) in support of the admittance of this new line of novelty attack into the appeal proceedings cannot be followed:

The appellant 2 (opponent), in view of the appeal filed by appellant 1 (patent proprietor) against the decision of the opposition division that considered the technical content of D5 prejudicial to novelty of claim 5 as granted, should and could have reacted, if considered necessary, by submitting with their reply to the statement of grounds of appeal alternative novelty attack/s in order to strengthen their position in the appeal proceedings in the event that the Board was not inclined to follow the novelty assessment of the first-instance department. The possibility that a board sets aside the conclusion of a first-instance department of the EPO is inherent to the purpose of the appeal proceedings and cannot be considered a surprising circumstance. However, the appellant 2 (opponent) decided not to submit any additional novelty attack and to rely only on the line of attack based on D5, thereby consciously accepting the risk to face a decision of the Board favorable to the appellant 1 (patent

proprietor) which could not be excluded beforehand. Furthermore, as observed by the appellant 1 (patent proprietor), the new line of attack was submitted 7 months after the preliminary opinion of the Board and this very large delay is not justified by any circumstances of the present appeal.

1.13 In view of all above, the Board finds that the circumstances of the opposition and appeal proceedings cannot be considered to be exceptional and since no cogent reasons can justify the new line of attack put forward by the appellant 2 (opponent), decided not to admit the line of novelty attack based on document D2 under Article 13(2) RPBA and therefore will not not be taken into account.

Independent claims 1 and 3 as granted in view of D1

1.14 Independent claims 1 and 3 as granted are identical to the correspondent independent claims of the auxiliary request 1 allowed by the first-instance department. The reasoning and the conclusions presented in the decision under appeal in respect of claims 1 and 3 of the auxiliary request 1 thus also apply to claims 1 and 3 as granted.

1.15 The appellant 2 (opponent) contested the conclusion of the opposition division that the subject-matter of claims 1 and 3 was novel over document D1.

1.16 In the Board's view, the relevant question under discussion is whether the system according to D1 comprises:

(a) "an imager to image a plant moved by the plant handler to identify a sampling location, and ..... a

sampler configured to remove a tissue sample from the sampling location"

according to independent apparatus claim 1, and the corresponding step of independent method claim 3 consisting of

(b) "imagining a plant with an imager to identify a sampling location and removing a tissue sample from the sampling location".

1.17 Regarding the issue of interpretation raised by the appellant 2 (opponent) of whether the terms *"sampling location"* and *"sampling location on the plant to sample"* in apparatus claim 1 indicated one and the same sampling location or two different sampling locations of the individual plant, the Board is of the opinion that these terms refer indeed to the same portion of the plant identified by the imager and selected by the the processor from which a tissue sample is removed by the sampler. This interpretation was not contested by the appellant 1 (patent proprietor).

1.18 The appellant 2 (opponent) drew the attention of the Board to the text in column 5, line 66 to column 6, line 10 of D1 stating that

".. the open container (42) shown in FIG. 1 may be observed from above by a video-camera (not shown) in a vision guidance system, which is linked to a robotic end effector (also not shown).", and that

"The end effector is then operated through a sequence in which a plantlet is held and cut, under the control of the vision guidance system.".

The appellant 2 (opponent) associated these teachings to the operation of the known system described in column 11, lines 10 to 40 with reference to Figures 10 and 11, according to which
"When sufficient of the plant has been fed downwardly to supply a node into the conveyor belts 93 and 93A, a laser cut is made across the line B in FIG. 11, which is arranged to lie horizontally between the upper pair of rollers 94 and 94A of the conveyor belts 93 and 93A, and the pair of roller grippers 70 and 70A. This line is indicated line is indicated at X in FIG. 10."

The appellant 2 (opponent) argued that the person skilled in the art, in view of the information contained in the text bridging columns 5 and 6 of D1, directly and unambiguously derived that the only straightforward way to determine that sufficient portion of the plant was fed downwardly in such a way to supply a node into the conveyor belt (93) and (93A), was to image the lower end portion of the plantlet with the video-camera mentioned in the passage bridging column 5 and 6 of D1, then to process the image in order to detect whether a node was present and hence, if this was the case, to separate by laser cutting said lower end portion of plantlet from the rest of the plantlet still retained between the rollers (70,70A). The appellant 2 (opponent) asserted that the determination of the cutting location, for example the cutting position B in Figure 10, corresponded to the claimed identification of a sampling location, and therefore the sampling location within the meaning of claims 1 and 3 corresponded to the entire lower portion of the plantlet located below the cutting line X in Figure 10. Furthermore, it was argued that as no definition of the term "*tissue sample*" was provided, the wording of claims 1 and 3 did not excluded the

possibility that the removed *"tissue sample"* coincided with the entire portion of the plantlet removed from the plantlet by laser cutting along the cutting line X. Finally, the appellant 2 (opponent) pointed out that, contrary to the view of the appellant 1 (patent proprietor), the apparatus and method for micropropagation according to D1 also implied an automatic plant tissue sampling system and method, and that a *"collection vessel"* in the broader meaning of claims 1 and 3 was also disclosed in this prior art document. It was thus concluded that, contrary to the assessment of the opposition division, document D1 was prejudicial to novelty of independent claims 1 and 3 as granted.

1.19 The interpretation of the technical content of document D1 on which the reasoning of the appellant 2 (opponent) is based is flawed for the following reasons:

The text bridging columns 5 and 6 of D1 cited by the appellant 2 (opponent) contains indeed the information that the plantlet is held and cut under the control of the vision guidance system, i.e. a video-camera which may observe the opened container (42) from the above. However, the passage in column 6, lines 1 and 2, mentioning *"a vision guidance system, which is linked to a robotic end effector"* coveys the impression that only the robotic end effector is linked and hence controlled by the vison guidance system. Furthermore, as correctly pointed out by the appellant 1 (patent proprietor), no video-camera is shown in Figure 10 and the cited passage in column 11, lines 10 to 40 is completely silent regarding the presence of a video-camera and, in any case, leaves completely open whether the determination of the presence of a node between the conveyor belts (93,93A) in Figure 10 is carried out by

a video-camera or by other means. In view of this lack of information it is not immediately apparent whether the presence of a node is detected by using a video-camera which triggers the laser cutting device and how the video-camera and the controller are operated to this purpose. Therefore, as convincingly brought forward by the appellant 1 (patent proprietor), the allegation of the appellant 2 (opponent) that the determination that sufficient length of the plantlet has been fed downwardly to supply a node into the conveyor belts (93,93A) is the result of the imagining obtained by a video-camera, is based on mere speculations, rather than being directly and unambiguously derivable from this prior art document. The Board also agrees with the appellant 1 (patent proprietor) that the use of a sensor to detect the physical presence of a node within the conveyor belts (93,93A) is an alternative possible way to carry out the steps described in column 11, lines 10 to 40, whereby the interpretation provided by the appellant 2 (opponent) is not univocal.

1.20 The Board is convinced that also under the assumption that it would be directly and unambiguously derivable from the information contained in D1 that the presence of a node in the portion of the plant to be cut out is detected by a video-camera as alleged by the appellant 2 (opponent), what is strongly questionable for the reasons given above, features (a) and (b) of claims 1 and 3 respectively (see point 1.15 above) cannot be considered to be directly and unambiguously disclosed in D1. In fact, even under this assumption, the straightforward way to carry out the process disclosed in column 11, lines 10-40 by means of a video-camera would be to use the video-camera described in the passage bridging columns 5 and 6 to directly identify

the presence of a node in the portion of a plantlet located below the rollers (70,70A), and not to identify the entire portion of the plantlet to be removed as alleged by the appellant 2 (opponent). Having said that, if a node is identified by the video-camera of D1, it cannot be considered a *"sampling location"* within the meaning of claims 1 and 3 because no tissue is subsequently sampled/removed from the node which is instead part of the removed tissue sample.

1.21 In conclusion the Board is convinced that features (a) and (b) are not directly and unambiguously disclosed in document D1 which is thus not prejudicial to novelty of independent claims 1 and 3 as correctly assessed by the opposition division.

Independent claims 11 and 14

1.22 Lack of novelty of these independent claims was not objected by the appellant 2 (opponent).

1.23 As no further novelty attacks were submitted in respect of the main request, the Board concludes that, contrary to the assessment of the opposition division, the patent as granted complies with the requirements of Articles 52(1) and 54 EPC.

Inventive Step: Articles 52(1) and 56 EPC

2. The subject-matter of claims 1, 3, 11 and 14 as granted involves an inventive step within the meaning of Article 52(1) and 56 EPC as correctly stated by the opposition division.

2.1 This conclusion of the opposition division is contested by the appellant 2 (opponent) who submitted following

lines of inventive step attack against the subject matter of independent claims 1, 3, 11 and 14:

Claims 1 and 3 in view of D2 and common general knowledge (D1, D3, D4, D8 or D9)

2.2 Having regard to the technical means and the steps defined in features (a) and (b) of claims 1 and 3 respectively, which the opposition division and the appellant 1 (patent proprietor) considered not to be disclosed in D2, the appellant (opponent) maintained that the broad formulation adopted in claims 1 and 3 did not exclude that the sampling location identified by the imager coincided with the entire plantlet (5) to be sampled, whereby also this feature was directly and unambiguously derivable from D2. It was also put forward that a kind of collection vessel was also provided in the system and method of D2 to collect the tissue samples in which the plantlet was divided. The appellant 2 (opponent) concluded that the subject-matter of claims 1 and 3 only differed from the technical content of D2 (reference was made in particular to Figures 4 (I) to 4 (VI)) in that the tissue sample was removed by laser cutting, whereas in D2 a mechanical cutter was used. They argued that, based on common general knowledge, the person skilled in the art would obviously consider to replace the mechanical cutter of D2 with a laser cutting device as it is well known in the relevant state of the art, for example documents D1, D3, D4, D8 and D9, thereby arriving without inventive step to the subject-matter of claims 1 and 3 as granted.

2.3 The reasoning of the appellant 2 (opponent) is not convincing):

The Board shares the view of the appellant 1 (patent proprietor) that the imager (9) in Figure 4 (III) of D2 does not identify a *"sample location"* in the meaning of features (a) and (b) of claims 1 and 3 respectively, but rather the entire plantlet that is subsequently divided in three parts. Therefore according to D2 merely cutting positions within the plantlet are identified by the imager. As correctly stated by the opposition division, the main idea underlying the contested patent as expressed by features (a) and (b) of claims 1 and 3 respectively and consisting in the step of identifying a specific sample portion within the plantlet from which a tissue sample is subsequently removed is thus not directly and unambiguously derivable from D2 or from the other cited documents. Therefore the combination of D2 with common general knowledge or D1, D3, D4, D7, D8 or D9 does not render obvious the subject-matter of claims 1 and 3.

D1 in view of D2 or D5 + D3

2.4 Regarding these further attacks the parties referred to their written submissions. However, as put forward by the appellant 1 (patent proprietor) and set out under points 1.18 and 2.3 above, neither one of D1 and D2 disclose the idea underlying the contested patent as expressed by features (a) and (b). Regarding D5 as closest prior art, the Board considers that, as set out under points 1.3 to 1.7 above, the sampling method and apparatus described therein are not meant or configured to handle and sample plants, but seeds, whereby the person skilled in the art would not consider this document as a promising starting point for the invention of the contested patent and in particular of claims 1 and 3. Furthermore, the Board does not see

that the procedure described in paragraphs [0060] to paragraph [0072] of D5 implies the use of an imager to identify a sample location from which a tissue sample is removed. The *"imaging device/s 304"* of this known seed sampling system is/are rather used for determining the orientation of a set of seeds and to provide this information to the *"orientation station 400"* where the seeds are conveniently oriented before removing a seed tissue sample. Therefore, neither the combination of D1 with D2 nor D5 with D3 does not render obvious the subject-matter of claims 1 and 3.

Claims 11 and 14

2.5 The appellant 2 alleged that the subject-matter of claims 11 and 14 is rendered obvious by the combination of D5 with common general knowledge or D3 and by the combination of D1 with common general knowledge or D10 respectively.

2.6 However, as explained above, the system and method of D5 are not suitable for handling and sampling plants as required by claim 11 and this document also fails to disclose a *"sample identifier"* to identify a specific tissue sample of a plant.

2.7 D1 does not disclose step (e) of claim 14 according to which at least one of color, size and shape of the individual plant is identified and, as explained above, also fails to show step (f) of determining a sampling location (based on at least one of the color, size and shape) of the individual plant and cutting this sampling location to remove a tissue sample from it.

2.8 Therefore, the combinations presented by the appellant 2 (opponent) do not render obvious the subject-matter

of claims 11 and 14 as granted as correctly stated by the opposition division.

Remittal to the first-instance department

3. Inventive step of the subject-matter of independent claim 5 has not been decided by the opposition divisions. The Board notes that at the oral proceedings both parties, in view of the conclusion of the Board as presented above, expressed the wish to obtain a first-instance ruling regarding the question of whether the subject-matter of claim 5 involved an inventive step in view of the cited prior art and to present and further develop their arguments in this respect before the opposition division. The Board considers these circumstances to represent *"special reasons"* within the meaning of Article 11 RPBA and therefore, exercising its discretion provided by Article 111(1) EPC decided to remit the case to the department of first instance for the assessment of inventive step of the subject-matter of claim 5 as granted.

APPEAL OF THE OPPONENT

Alleged procedural violation - Reimbursement of the appeal fee

4. In view of the remittal of the case to the opposition division, the Board considers that the only outstanding point raised with the appeal of the appellant 2 (opponent) which needs to be decided, is whether a substantial procedural violation took place at the opposition oral proceedings justifying the request of reimbursement of the appeal fee under Rule 103(1) (a) EPC.

4.1 At the appeal oral proceedings the parties relied in this respect on their arguments presented in writing and did not wish to make any further submissions. Consequently, the Board has no reason to deviate from the assessment of this issue as presented in its preliminary opinion that is hereby confirmed and reads as follows:

4.2 The appellant 2 (opponent) contested the correctness of the content of the minutes of the oral proceedings and with letter dated 25 May 2021 requested their correction which was partially granted. Nevertheless, even if assuming although contested by the opposition division, that the circumstances of the oral proceedings occurred as alleged by the appellant 2 (opponent), the Board is of the opinion that no substantial procedural violation occurred.

4.3 The Board considers that the behaviour of the Chairman of the opposition division which was criticized by the appellant (opponent) with their appeal does not extend beyond a normal exercise of officiating the oral proceedings in the attempt to lead the proceedings efficiently to a conclusion. Furthermore, the Board is of the opinion that the allegation of the appellant 2 (opponent) that the influence allegedly exercised by the Chairman during the oral proceedings determined an advantage for the appellant 1 (patent proprietor) reflected in the outcome of the opposition proceedings, is merely based on speculation. In this respect the Board observes that the original auxiliary requests 1 to 5 on file had been submitted as a reaction to the summons, and that no preliminary opinion of the opposition division regarding said auxiliary requests was available at the time of the oral proceedings. Therefore, the Board does not see any substantial

procedural issue in the alleged circumstance that the Chairman, after dismissal of the main request for lack of novelty of claim 5 as granted, informed the parties that the opposition division saw potential problems under Rule 80 EPC affecting the auxiliary requests 1 to 5 on file which were the next ones to be discussed. This was in fact the first opportunity for the opposition division to do so. In the Board's view, expressing a preliminary opinion on a set of new requests before their discussion cannot be considered detrimental to the position of any of the parties, but on the contrary beneficial to procedural economy.

4.4 Furthermore, contrary to the allegations of the appellant 2 (opponent), there was apparently no reason for the opposition division, in particular in absence of any questioning or even complaint from the appellant 1 (patent proprietor) regarding the substance of their alleged objections regarding the auxiliary requests, to explain and eventually discuss this potential issue with the parties. In fact the appellant 1 (patent proprietor) decided on their own volition to amend the auxiliary requests on file immediately without any attempt to defend them and consequently filed the new auxiliary requests 1 and 2.

4.5 Furthermore, the Board does not share the view of the appellant 2 (opponent) that the behaviour of the Chairman as alleged in the grounds of appeal negatively affected the position of the appellant 2 (opponent). In fact, in the event that appellant 1 (patent proprietor) had questioned and contested the preliminary opinion as announced by the Chairman that the pending auxiliary requests 1 to 5 did not comply with Rule 80 EPC, subsequently these requests would have been maintained pending and therefore be discussed in this respect.

Had the objection been confirmed for all the auxiliary requests already on file, it can be most certainly be assumed that the appellant 1 (patent proprietor) would have made an attempt to amend the requests to overcome the objections, as they actually did for the appeal proceedings. Therefore, the assertion of the appellant 2 (opponent) that without the guidance provided by the Chairman the patent might have been possibly revoked is also based on mere speculations.

4.6 Even if although denied by the opposition division the Chairman had given the hint that amendments were required for claim 5 only does not go beyond the exercise of a mere guidance by the Chairman and does not result in an unfair treatment of one party. As convincingly stressed by the appellant 1 (patent proprietor) in their reply, the reaction which led to the submission of two new auxiliary requests labelled 1 and 2 containing amendments in claim 5 was only the natural consequence of the opposition division's negative assessment of lack of novelty of granted claim 5 only.

4.7 Finally, regarding the further observation of the appellant 2 (opponent) that the preparation of the new requests took a very long time, the Board does not see how this circumstance might support the alleged substantial procedural violation either.

4.8 In conclusion, the Board finds that the circumstances recalled by the appellant 2 (opponent), even if fully in accordance with the events as they actually occurred at the oral proceedings, did not result in a preferential treatment of appellant 1 (patent proprietor) by the opposition division amounting to a substantial procedural violation justifying the

reimbursement of the appeal fee under Rule 103(1) (a) EPC and the request is to be refused.

ORAL PROCEEDING AS VIDEOCONFERENCE

5. With the letters dated 08 February and 23 February 2023 respectively the appellant 2 (opponent) objected to the intention of the Board to hold the oral proceedings scheduled on 23 March 2023 as video-conference and provided reasons as to why the oral proceedings should be held in presence. With a communication dated 27 February 2023 the Board confirmed that the oral proceedings will take place as videoconference and provided reasons in support of this decision to exercise its discretion provided by Article 15a RPBA 2020, to hold the oral proceedings by videoconference. To come to this decision, the Board considered the objections put forward by the opponent and considered the case to be suitable to be dealt with by videoconference. The Board notes that appellant 2 (opponent), although they had the opportunity, did not present neither at the beginning nor at the end of the oral proceedings any requests, complaints or comments in this respect especially did not claim that during the oral proceedings their right to be heard had been violated by the videoconference.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division for further prosecution.

3. The request for reimbursement of the appeal fee is refused.

The Registrar: The Chairman:

A. Vottner G. Pricolo

Decision electronically authenticated