

**BEFORE THE CONTROLLER OF PATENTS  
THE PATENT OFFICE, KOLKATA**

THE PATENTS ACT, 1970 (as amended)  
The Patents Rules, 2003 (as amended)

(SECTION 25(1) and RULE 55)

In the matter of the Indian Patent Application  
No. 201721030943 dated 31/08/2017 filed by  
FREEDOM AUTOMATION SOLUTIONS LLP OF  
520 to 527, Podar Arcade, Khand Bazar,  
Varachha Road, Surat -395006, Gujarat, India.

AND

In the matter of opposition under section 25(1)  
to the grant of patent thereto by M/s  
Sahajanand Technologies Private Limited of A1,  
Sahajanand Estate, vakhariawadi, Near Dabholi  
Char Rasta, Ved Road, Surat - 305004,  
Gujarat, India.

FREEDOM AUTOMATION SOLUTIONS LLP.....The Applicant

M/s Sahajanand Technologies Private Limited.....The Opponent

Presents in the hearing:

Mr. Tapan shah (IN/PA/2553)

Mr. Tarun Khurana (IN/PA/1325)

Agents for the Applicant

Mr. Abhishek Magotra (IN/PA No. - 1517)

Agent for the opponent

**Facts of the case:**

1. The instant application no. 201721030943 was filed by FREEDOM AUTOMATION SOLUTIONS LLP of address 520 to 527, Podar Arcade, Khand Bazar, Varachha Road, Surat -395006, Gujarat, India hereinafter called as the Applicant, in Patent office on 31/08/2017 as an ordinary application.
2. Under the provisions of Section 11(A) of the Patents Act, 1970 said application was published on 22/03/2019 with Journal number of publication 12/2019.
3. The request for expedited examination was filed vides RQ No. E20182030551 dated 15/10/2018 under rule 24C of the Patents Rules, 2003 (as amended).
4. The said application was examined under sections 12 and 13 of the Patents Act, 1970 (as amended) and First Examination report was issued on 29/03/2019. In response to the First Examination Report, applicant's agent submitted its reply on 25/04/2019 and amended the claims accordingly.
5. With reference to the reply to the First examination Report, a hearing u/s 14 of the Patents Act, 1970 has been scheduled on 20 Jun 2019 and the Written Submissions with further claim amendments u/s 14 hearing was submitted on 22/06/2019.
6. M/s Sahajanand Technologies Private Limited of A1, Sahajanand Estate, vakhariawadi, Near Dabholi Char Rasta, Ved Road, Surat – 305004, Gujarat, India hereinafter called as opponent has filed a Pre-Grant Opposition under Section 25(1) of The Patents Act, 1970 on 19/06/2019 with request for hearing. A decision under section 15 cannot be arrived at when the pre-grant opposition under section 25(1) is pending. In view of the same, both the applicant and the opponent are given an opportunity to be heard together.
7. The notice regarding Representation of Opposition was filed in Form 7A on 19/06/2019. It was taken on record and the applicant was informed accordingly on 26/06/2019 at 5:47 PM under the provisions of the Amended Rule 55(3) of the Patents Rules 2003 with a copy to opponent. The applicant's agent has filed reply statement for first notice of opposition on 12/08/2019. Applicant's agent made request for a hearing in reply statement. Both the applicant and the opponent are given an opportunity to be heard together on 18/10/2019 at 11:00 AM and the notice for the pregrant hearing was sent to both parties on 09/09/2019. The Hearing was attended by both parties along with their representatives.

### **Submissions/arguments of the opponents**

8. The Opponent wishes to oppose the impugned application on the following grounds under Section 25(1) and Rules 55 of The Act:

1. Section 25(1)(g): that the complete specification does not sufficiently and clearly describe the invention or the method by which it is to be performed

2. Section 25(1)(b): that the invention so far as claimed in any claim of the complete specification has been published before the priority date of the claim-

(i) in any specification filed in pursuance of an application for a patent made in India on or after the 1st day of January, 1912; or

(ii) in India or elsewhere, in any other document:

Provided that the ground specified in sub-clause (ii) shall not be available where such publication does not constitute an anticipation of the invention by virtue of subsection (2) or sub-section (3) of section 29

3. Section 25(1)(e): that the invention so far as claimed in any claim of the complete specification is obvious and clearly does not involve any inventive step, having regard to the matter published as mentioned in clause (b) or having regard to what was used in India before the priority date of the applicant's claim

4. Section 25(1)(f): that the subject of any claim of the complete specification is not an invention within the meaning of this Act, or is not patentable under this Act

5. Section 25(1)(h): that the applicant has failed to disclose to the Controller the information required by section 8 or has furnished the information which in any material particular was false to his knowledge

Further written Statement having 182 pages in support of representation of opposition under Section 25(1) was submitted on same date 19/06/2019.

In the written Statement the Opponent raised following grounds under Section 25(1) and Rules 55 of the Act:

**Ground I: Section 25(1)(g): that the complete specification does not sufficiently and clearly describe the invention or the method by which it is to be performed**

25. The Opponents relies on Section 25(1)(g) and submits that the complete specification does not sufficiently and clearly describe the invention or the method by which it is to be performed.

26. As per Section 10(4) of the Act, every complete specification shall fully and particularly describe the invention and its operation and the method by which it is to be performed. Section 10(4) also requires that the complete specification shall disclose the best method of performing the invention.

27. The device and method claimed in originally filed claims as well as in claims amended in response to First Examination Report, are not sufficiently supported by the description and do not describe the best mode.

28. Chapter 05 of Manual of Patent Office Practice and Procedure relates to Provisional and Complete Specifications. Section 05.03 of said Manual describes the importance of a complete specification, the relevant excerpt is reproduced herein below:

#### Complete Specification

The Complete Specification is a techno-legal document which fully and particularly describes the invention and discloses the best method of performing the invention.

As the Complete Specification is an extremely important document in the patent proceedings it is advised that it should be drafted with utmost care without any ambiguity. The important elements of the Complete Specification are further discussed below.

29. It is a cardinal principle of patent law that a complete specification must describe the closest prior art and the improvement / distinguishing features of the proposed invention from said closest prior art. In this respect, the Opponent relies upon Section 05.03.05 of said Manual, the relevant excerpt of which is reproduced herein below:

#### Prior Art and problem to be solved

This part should indicate the status of the technology in the field of invention with reference to developments in the field, patents and pending patent applications in the specific art. When the invention relates to an improvement on an existing product or process, a short statement of the closest prior art known to the applicant shall also be

given. However, the description should fully and particularly describe the invention, by clearly distinguishing it from such a closest prior art, known to the applicant.

30. Sections 05.03 and 05.03.05 of Manual of Patent Office Practice and Procedure are annexed herewith and collectively marked as Exhibit D.

31. However, the Applicant has merely described gemstones and their basic processing techniques in the Background Section. Importantly, the Applicant has categorically stated that the description in the Background section is neither a prior art nor relevant to the alleged invention, and that any publication specifically or implicitly described in this section is not prior art. The relevant excerpt from the complete specification is reproduced herein below:

Para [0002] Background description includes information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

32. Therefore, the description of the impugned application fails to meet the important criteria as required by The Patents Act, 1979.

33. The complete specification in [para 0006] states that the alleged invention is an improvement over mechanical processing / polishing of gemstones and that no automatic gemstone processing / polishing machine existed before the priority date of the impugned application.

34. The Opponent respectfully submits that automatic gemstone processing machines were known in the art for more than a decade before the impugned application was filed on August 31, 2017, as will be clear from the prior arts relied upon by the Opponent in following paragraphs.

35. The Applicant has merely attempted to mislead the Learned Controller with malafide intentions by not describing relevant prior art in the complete specification.

36. Claim 1 refers to a gemstone holding unit 21 for supporting a gemstone in contact with an abrasive surface and configured to polish the gemstone in a plurality of iterations based on feedback signal. The abrasive surface is also mentioned, for example, in Para 0036 of the description. However, it is not clear from the description and / or drawings as to how and in which orientation the diamond can be placed in contact with said abrasive surface for performing the polishing operation. Further, the configuration, position as well as operation of said abrasive surface is not described.

37. Moreover, it is not clear from the description and / or drawings as to how the gemstone holding unit 21 is operated and configured to polish the gemstone. It is not clear what actions will be performed by the holding unit 21 after receiving the feedback signal and how such actions will be performed. The description also fails to disclose how is the gemstone holding unit 21 configured to receive feedback signals from the processor.

38. The description and claims also refer to a mandrel by means of which the base 3 is allegedly coupled with the abrasive surface [Refer para 0038]. However, the configuration, position as well as operation of said mandrel with respect to the base and / or abrasive surface is not described.

39. In paras 0039 & 0040, the description refers to various known structural components of the robot / machine, such as a balk 1, a base 3, a head 5, a guide 6, pneumatic chuck 21 etc.

However, their connection and operation with the alleged essential features i.e. capturing image, comparing with predetermined parameters and generating feedback, is not described.

40. It is also not clear from the description, how various drives mentioned in the description are connected with the processor and how feedback signal is transmitted from the processor to these drives for performing necessary operation. Moreover, even the operation of these drives and mechanisms involved in performing such operation are not described.

41. As per claim 1, the image capturing unit captures the image of a gemstone in one or more iterations. However, it is not clear from the description how the image captured by the image capturing unit is used by the image processing unit and how the feedback signal from the image processing unit enables re-capturing of images in more than one iteration.

42. The description also fails to disclose how the parameters of a diamond are deduced by the image processing unit from the analysis of image captured by the image capturing device.

43. As per claim 1 of the instant application, the image processing unit is executed by one or more processors, which is contradictory to the processing unit defined in the description. For example, para 0037 describes the processing unit itself as a simple processor or a group of one or more processors.

44. Moreover, the system architecture, various components and sub-components / modules of the alleged processing unit, their connections

with each other and with hardware features etc. are not explained in the description.

45. Considering that the alleged inventive feature resides in the processing unit, the system architecture, various components and sub-components / modules of the alleged processing unit, connections of said components / sub-components / modules with each other and with hardware features of the robot / machine etc. become critical for explaining best mode of the alleged invention.

46. However, nothing in this respect has been explained in the description. Moreover, there is no drawing depicting features of the processing unit.

47. It is further not clear from the description what is the percentage of processing / polishing of a gemstone in each iteration. If a pre-determined parameter is set at the start of processing / polishing process as described in the description, how many iterations would it take to achieve the desired output. Also, the criteria for selecting iterations, minimum and maximum number of iterations etc. are not described. It is not clear from the description how multiple iterations are controlled.

48. Claim 2 refers to centring of the 'abrasive surface' along an axis of the 'mandrel'. However, the position, configuration and operation neither the 'abrasive surface' nor the 'mandrel' is explained in description and / or drawings.

49. Claim 3 refers to coupling of the 'first drive unit' with the 'mandrel'. However, the position, configuration and operation neither the 'first drive unit' nor the 'mandrel' is explained in description and / or drawings.

50. Claims 4 & 5 refer to coupling of the second drive units with the gemstone holding unit 21 and degrees of motion provided by them. However, second drive unit is indicated by reference numerals 2, 4, 7, 9, 10, 11. It is clear from the Figure 1 that at least turn axis 2, balk turn drive 4, and drive 7 are not attached to the gemstone holding unit 21. Moreover, configuration and operation of drives 9, 10 & 11 are also not clearly described.

51. Claim 6 refers to transmitting of feedback signal by image processing unit to first drive unit for controlling motion conferred to the mandrel and the second drive to control motion to the gemstone holding unit. At the outset, the position, configuration and operation of neither the first drive unit nor the mandrel is described. Moreover, it is not clear how the feedback signal is transmitted by the image processing unit to various

components and how the image processing unit is attached to said components.

52. Claim 7 refers to a chuck 12, clamp and a collet 13 of the gemstone holding unit. However, these components are merely indicated in Figure 1. The configuration of these components is neither clear from the description nor from Figure 1.

53. Claim 8 refers to various analysed and pre-determined gemstone parameters. However, it is not clear from the description how these parameters are compared.

54. Therefore, it can be seen from above that the alleged invention as claimed in the impugned application does not sufficiently and clearly describe the invention or the method by which it is to be performed, and definitely fail to describe the best mode.

55. In view of above, the Opponent submits that grant of a patent on the instant application ought to be refused on this ground only.

**Ground II: Section 25(1)(b): that the invention so far as claimed in any claim of the complete specification has been published before the priority date of the claim-**

(i) in any specification filed in pursuance of an application for a patent made in India on or after the 1st day of January, 1912; or

(ii) in India or elsewhere, in any other document:

i. Provided that the ground specified in sub-clause (ii) shall not be available where such publication does not constitute an anticipation of the invention by virtue of subsection (2) or sub-section (3) of section 29

56. Without prejudice to the submissions made hereinabove, the Opponent submits that the alleged invention as claimed in the impugned application lacks novelty.

57. On the ground of lack of novelty, the Opponent wishes to rely on the following documents:

a. IN 242710 published on April 6, 2007 annexed and marked as Exhibit E

58. The Opponent asserts that the alleged invention claimed in claims of the impugned application lack novelty in view of IN 242710 [Exhibit E] as is demonstrated in the following paragraphs.

59. IN 242710 relates to an automatic diamond bruting system having a gemstone holding unit (pot 34) for supporting the gemstone / diamond in contact with an abrasive surface (reference diamond), an image capturing unit (CCD camera 22) for capturing images of the gemstone, and an image processing means which analyses the image of the gemstone and compares it with pre-defined gemstone parameters to



generate a feedback signal to be transmitted to the gemstone polishing unit. The relevant excerpt is reproduced below: "An automatic diamond bruting system, comprising :

a means (34) to mount a rough diamond (14);

a means (34) to mount a reference diamond;

an image capturing device (22) to obtain a 2D image(s) of the rough diamond;

an image processing means to measure and convert the 2D image(s) into a 3D image(s),

said image processing means compares the same with a reference 3D image;

a feed back system (25) to control, allow to arrange central axis (x-x) of the rough diamond (14) in line with bruting axis by tilting the means and operate the bruting process by analyzing the compared image thereby providing on-machining facility; and

a laser line generator (20) to project laser on the rough diamond (14) to capture sectional image(s) for measuring the depth of cavity (35) on the rough diamond." [Refer Claim 1]

60. The image capturing device disclosed in IN 242710 is a CCD (Charge Couple Device) camera that is aligned with the rough diamond to capture rotating images of said rough diamond. The

relevant excerpt is reproduced herein below:

"According to the present invention as illustrated in Fig.1 the image-capturing device is a CCD (Charge Couple Device) camera. The CCD (22) camera is aligned with the rough diamond to captures rotating image(s) of the rough diamond (14) preferably the CCD camera (22) captures the rotating image(s) of the rough diamond (14) against collimated back light background (12)" [Refer Page 6, para 2]

"The image(s) of the rough diamond (14) are continuously taken to measure and analyze the size thereof while it is being processed" [Refer Page 10, last para]

61. The image processing means of IN 242710 compares the image of the gemstone with predetermined parameter, as is explained in the excerpts below:

".....Further the image processing means compares the 3D image(s) of the rough diamond (14)

with the reference 3D image of the reference diamond. This reference diamond is an image of RBC

(Round Brilliant Cut) diamond" [Refer para bridging pages 6 & 7]

“The comparison is done by allocating the reference image in the 3D image(s) of the rough diamond with predetermined parameters which helps in highest possibility recovery and which removes wastages” [Refer Page 9, last para]

62. The image processing means also has a feedback system for adjusting the rough diamond in a plurality of iterations. The relevant excerpts are reproduced below: “The feedback system of the present invention connected with the image processing means is a rotational feed back system which tilts the spindle for arranging the central axis (x-x) of the rough diamond (14) to obtain higher recovery and profit” [Refer Page 8, first para]

“Once the centering is completed, the total control is taken over by the machine. The image(s) of the rough diamond (14) are continuously taken to measure and analyze the size thereof while it is being processed. The rate of cutting will drop in three stages depending on the current diameter of the rough diamond (14) and its desired value. When the diameter of the rough diamond (14) to be bruted reaches the required value and zoeting allowance, the feeding in will stop. The machine intelligence takes care of the total control and decides when the rate of cutting has to be reduced and when it has to be taken to zoeting cycle.” [Refer para bridging pages 10 & 11]

The diamond girdle will be zoeted for a predefined time. Before terminating the process, the diamond will be measured again, indicating its current size and variation in measurement at various diametric locations. The out of roundness will be indicated on the screen. Bruting process automatically stops as when the desired parameter is achieved and the accuracy stoppage of the bruting system is as closed as 0.010mm to 0.015mm. Further the system according to the present invention requires less attendance during bruting process. Hence resulting in reducing of labor cost” [Refer Page 11, first para]

63. As can be seen from above, the alleged invention claimed in the impugned application is completely disclosed in IN 242710 and hence, is not novel in view of IN 242710.

64. In view of above, the Opponent submits that grant of a patent on the instant application ought to be refused on this ground only.

**Ground III: Section 25(1)(e): that the invention so far as claimed in any claim of the complete specification is obvious and clearly does not involve any inventive step, having regard to the matter published as**

**mentioned in clause (b) or having regard to what was used in India before the priority date of the applicant's claim**

65. Without prejudice to the submissions made hereinabove, the Opponent submits that the alleged invention as claimed in the impugned application lacks inventive step and is obvious to a person skilled in the art.

66. On the ground of lack of inventive step, the Opponent wishes to rely on the following documents:

- a. IN 242710 published on April 6, 2007 annexed and marked as Exhibit E
- b. US5504303A published on April 2, 1996 annexed and marked as Exhibit F
- c. WO1997025177A1 published on July 17, 1997 annexed and marked as Exhibit G
- d. EP1511597B1 published on March 9, 2005 annexed and marked as Exhibit H
- e. JP2005125441A published on May 19, 2005 along with its machine translation collectively annexed and marked as Exhibit I
- f. 613/KOL/2004 published on April 6, 20117 annexed and marked as Exhibit J
- g. 1633/DELNP/2004 published on April 6, 20117 annexed and marked as Exhibit K

67. Section 2(1)(ja) defines 'inventive step' as a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.

68. Without prejudice to the submissions made hereinabove, the Opponent asserts that the alleged invention claimed in claims of the impugned application lacks inventive step in view of IN 242710 [Exhibit E] as is demonstrated in the preceding paragraphs. The Opponent reiterates the submissions made in Ground II: Section 25(1)(b) hereinabove in respect of this prior art and the same are not reproduced herein for the sake of brevity.

69. Without prejudice to the submissions made hereinabove, the Opponent asserts that the alleged invention claimed in claims of the impugned application lacks inventive step in view of US5504303A [Exhibit F] as is demonstrated in the following paragraphs.

70. US5504303A relates to an apparatus and method for precision measuring and finishing of diamond surfaces using lasers. [Col. 1, lines 7 to 10]

71. The apparatus of US5504303A is a feedback-controlled system that can be readily programmed to provide a diamond sample with a desired diamond surface geometry via repeated processing without removing the diamond from the apparatus. [Col. 2, lines 41 to 51]

72. The apparatus includes a profilometer laser that measures the thickness (parameter) of a portion of a diamond. This thickness is compared with a pre-determined value of desired thickness (pre-determined thickness) in different iterations. If the thickness obtained after an iteration is greater than the desired thickness, the process is repeated till the desired thickness

is obtained. The relevant excerpt is reproduced herein below:

“In a first embodiment of the invention, the laser apparatus generally includes an ablating laser, a profilometer laser, an automatic feedback control unit and electro-mechanical positioning mechanism. The profilometer laser measures the thickness of a portion of diamond. The measurement taken by the profilometer laser is then compared to a recorded value representing the desired thickness. Where the measurement is found to be greater than the desired thickness, the feedback control unit causes the positioning mechanism to position the ablation laser to ablate the measured portion of the diamond for a predetermined time interval which depends upon the measured thickness of the portion. The ablation laser uses a low angle ablation technique to smooth any irregularities which may be contributing to the thickness of the thickness of the diamond. After ablating, the polished portion of the diamond is remeasured by the profilometer laser to determine if it conforms to the desired thickness. If the thickness of the portion is still greater than the desired thickness, the feedback control unit repeats the steps of positioning and activating the ablation laser to further ablate the polished portion. This process is repeated until the thickness of the portion is substantially equal to the desired thickness. Once the desired thickness is obtained, the feedback control unit causes the positioning mechanism to reposition the profilometer laser to another portion of the diamond sample and the above steps of measuring and ablating are repeated until the portion has the desired thickness. Once every portion of the diamond has undergone this procedure, the diamond will have the uniform desired thickness; i.e. smoothness.” [Col. 3, line 52 to Col. 4, line 15]

73. As can be seen from above, the processing unit that compares analysed parameters of a gemstone with pre-determined gemstone

parameters in multiple iterations to generate the feedback signal is known in US5504303A. Therefore, the alleged invention of the imputed patent application lacks inventive step and is obvious to a person skilled in the art in view of US5504303A either alone or in combination with earlier mentioned document.

74. Without prejudice to the submissions made hereinabove, the Opponent asserts that the alleged invention claimed in claims of the impugned application lacks inventive step in view of WO1997025177A1 [Exhibit G] as is demonstrated in the following paragraphs.

75. WO1997025177A1 relates to a laser marking system for gemstone. The system includes a gemstone mounting holder (144) that can be displaced along three axes for moving a gemstone (11) with respect to the optical system, an imaging system for viewing the gemstone from a plurality of viewpoints, a processor controlling the position of the holder (144) based on marking instructions and a predetermined program. [Refer Abstract]

76. Multiple laser passes may be required on bruted girdles of the gemstone to achieve the desired marking. The reruns are automatically performed based on predetermined criteria or based on optical feedback from the video cameras. [Refer page 28, lines 27 to 32]

77. As can be seen from above, the processing unit that compares analysed parameters of a gemstone with pre-determined gemstone parameters in multiple iterations to generate the feedback signal is known in WO1997025177A1. Therefore, the alleged invention of the impugned patent application lacks inventive step and is obvious to a person skilled in the art in view of WO1997025177A1 either alone or in combination with earlier mentioned documents and common general knowledge.

78. Without prejudice to the submissions made hereinabove, the Opponent asserts that the alleged invention claimed in claims of the impugned application lacks inventive step in view of EP1511597B1 [Exhibit H] as is demonstrated in the following paragraphs.

79. EP1511597B1 relates to a laser diamond blocking machine for faceting the bottom of a diamond. The machine disclosed in EP1511597B1 includes a sliding unit 1, a lifting unit 2, a revolving unit 3 and a plurality of drives (motors) for operating said units.

80. The structure / configuration of the machine and operation of its components, such as sliding unit, lifting unit, revolving unit, motors etc. are similar to the robot claimed in the impugned application.

EP1511597B1 does not disclose the capturing of image of a gemstone and comparing parameters of the gemstone from captured image with pre-determined parameters to obtain a feedback signal. However, EP1511597B1 can be combined with any one of documents discussed above to arrive at the automatic robot claimed in the impugned application.

81. Therefore, the alleged invention of the impugned patent application lacks inventive step and is obvious to a person skilled in the art in view of WO1997025177A1 in combination with earlier mentioned documents and common general knowledge.

82. Without prejudice to the submissions made hereinabove, the Opponent asserts that the alleged invention claimed in claims of the impugned application lacks inventive step in view of JP2005125441A, as is demonstrated in the following paragraphs.

83. A copy of JP2005125441A along with its machine translation are annexed herewith and collectively marked as Exhibit I. 84. JP2005125441A relates to a diamond grinding attachment having a table 14 capable of moving in X direction, a column 15 capable of moving in Z direction and a saddle 16 capable of moving in Y direction. The saddle 16 has a work holding shaft having a chuck part 30 for holding the diamond. A revolving shaft 32 is provided for indexing the cut surface of the diamond. A revolving shaft 34 is also provided for revolvably supporting the work holding shaft 18 around the A axis. Further, a cut surface angle setting means is provided for setting an angle of the cut surface of the diamond. [Refer Abstract]

85. As can be seen from above, JP2005125441A discloses components, such as sliding unit, lifting unit, revolving unit, motors etc. for providing multiple degrees of motion in a similar manner as in the robot claimed in the impugned application. JP2005125441A does not disclose capturing of image of a gemstone and comparing parameters of the gemstone from captured image with pre-determined parameters to obtain a feedback signal. However, JP2005125441A can be combined with any one of documents discussed above to arrive at the automatic robot claimed in the impugned application.

86. Therefore, the alleged invention of the impugned patent application lacks inventive step and is obvious to a person skilled in the art in view of JP2005125441A either alone or in combination with earlier mentioned documents and common general knowledge.

87. Without prejudice to the submissions made hereinabove, the Opponent asserts that the alleged invention claimed in claims of the

impugned application lacks inventive step in view of 613/KOL/2004 [Exhibit J], as is demonstrated in the following paragraphs.

88. 613/KOL/2004 relates to a device for controlling movement of a polishing assembly on a polishing surface. In particular, 613/KOL/2004 relates to a polishing device for a gemstone.

The polishing device includes a vertical rod, a motive power means for lowering, lifting, rotating and / or oscillating the vertical rod about axis A-A. A pin is provided that is offset from the axis of rotation and connected to the vertical rod for mounting the polishing assembly. When the vertical rod is interfaced with the polishing assembly, the gemstone contacts the polishing wheel in a controlled and gentle manner, thereby ensuring consistency and repeatability of the polishing process and improved longevity of the polishing wheel.

[Refer Abstract]

89. As can be seen from above, 613/KOL/2004 discloses a configuration of a diamond polishing machine having multiple degrees of motion. 613/KOL/2004 does not disclose capturing of image of a gemstone and comparing parameters of the gemstone from captured image with pre-determined parameters to obtain a feedback signal. However, 613/KOL/2004 can be combined with any one of documents discussed above to arrive at the automatic robot claimed in the impugned application.

90. Therefore, the alleged invention of the impugned patent application lacks inventive step and is obvious to a person skilled in the art in view of 613/KOL/2004 in combination with earlier mentioned documents and common general knowledge.

91. Without prejudice to the submissions made hereinabove, the Opponent asserts that the alleged invention claimed in claims of the impugned application lacks inventive step in view of 1633/DELNP/2004 [Exhibit K], as is demonstrated in the following paragraphs.

92. 1633/DELNP/2004 relates to a system and method for automatic polishing of a gemstone.

The system provides a combination of vertical and angular displacement of the gemstone relative to a polishing wheel. In this regard, a vertical displacement element and an angular displacement element are attached to a tang. 1633/DELNP/2004 also discloses a plurality of sensors, including a pressure sensor to sense the gemstone pressure on the polishing wheel.

93. Therefore, the alleged invention of the impugned patent application lacks inventive step and is obvious to a person skilled in the art in view of

1633/DELNP/2004 in combination with earlier mentioned documents and common general knowledge.

94. The Opponent further asserts that having a mandrel with a drive unit would be obvious to a person skilled in the art in view of the aforementioned documents and common general knowledge.

95. Further, it would be obvious to a person skilled in the art in view of the aforementioned documents and common general knowledge that the analysed parameters of gemstone as well as pre-determined parameters may include one or more of table size, crown angle, crown depth, girdle diameter, pavilion angle, pavilion depth, number of facets, size of facet, proportion of facets, halves, angle of facet and mutual positioning of facet.

96. Furthermore, illuminating unit and cleaning units are integral part of a gemstone polishing machine and there is no inventive step in having these components in the polishing robot of the impugned application. Therefore, these elements would also be obvious to a person skilled in the art in view of the aforementioned documents and common general knowledge.

97. It would also be obvious to a person skilled in the art that iterations of the process of polishing gemstone can be continued till parameters of a gemstone are matched by 50% or 90% with pre-determined parameters. This will depend upon the initial command given to the polishing unit.

98. In view of above, the Opponent submits that grant of a patent on the instant application ought to be refused on this ground only.

**Ground IV: Section 25(1)(f): that the subject of any claim of the complete specification is not an invention within the meaning of this Act, or is not patentable under this Act**

99. Without prejudice to the submissions made hereinabove, the Opponent submits that the alleged invention as claimed in the impugned application specification is not an invention within the meaning of this Act.

100. According to Section 2(1)(j) of the Act, an 'invention' means a new product or process involving an inventive step and capable of industrial application.

101. According to Section 1(1)(ja), 'inventive step' means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.



102. The Opponent has already demonstrated in preceding paragraphs that the alleged invention claimed in the impugned patent application lacks novelty and inventive step in view of prior art and / or common general knowledge. Further, there is no technical advance or economic significance associated with the alleged inventive feature. It would be obvious to a person skilled in the art to arrive at the alleged invention claimed in the impugned patent application based on the prior art cited in preceding paragraphs either alone or in combination with each other and / or common general knowledge.

103. Without prejudice to the submissions made hereinabove, the Opponent submits that the alleged invention as claimed in the impugned application specification is not patentable under this Act.

104. According to Section 3(d) of the Act, a mere use of a known a known process, machine or apparatus is not considered to be an invention and is not patentable unless such known process results in a new product.

105. However, the Applicant in the impugned application has merely used a known process of capturing an image of a gemstone, analysing and comparing its parameters with predetermined parameters to obtain a feedback signal in multiple iterations. Further, the apparatus as claimed in the impugned patent application comprises elements / features, which are already known in conventional machines / apparatuses / devices.

106. Therefore, the impugned patent application claims a mere use of a known process, machine or apparatus and hence, is not allowable.

107. According to Section 3(f) of the Act, mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way is not patentable.

108. It has been an admitted position by the Applicant in the impugned patent application that all the elements of the apparatus claimed in the impugned patent application are known in the art and the only alleged 'inventive feature' is to compare the parameters with pre-determined parameters to obtain a feedback signal. Opponent has demonstrated above that all the elements of the apparatus claimed in the impugned patent application, including the alleged 'inventive feature', are known in the art.

109. Further, the description of the impugned application does not provide any connection of image capturing device, gemstone holding device, processing unit, various drives and other components of the robot.

110. Therefore, Applicant has merely arranged or re-arranged or duplicated known devices, which function independently of each other in a known way.

111. According to Section 3(k) of the Act, a mathematical or business method or a computer programme per se or algorithms are not patentable.

112. The Opponent has demonstrated above that the gemstone capturing unit for supporting a gemstone in contact with an abrasive surface as well as the image capturing device for capturing images of a gemstone in multiple iterations were very well known in the art before the filing date of the impugned application. Also, the image processing unit for analysing and comparing parameters of a gemstone with pre-determined parameters in multiple iterations were also known before the filing date of the impugned application. In any event, the alleged inventive feature of analysing and comparing parameters of a gemstone with pre-determined parameters to generate a feedback signal in multiple iterations is nothing but a computer programme per se or algorithm, which is not patentable according to Section 3(k) of The Patents Act.

113. In view of above, the Opponent submits that grant of a patent on the instant application ought to be refused on this ground only.

**Ground V: Section 25(1)(h): that the applicant has failed to disclose to the Controller the information required by section 8 or has furnished the information which in any material particular was false to his knowledge**

114. Without prejudice to the submissions made hereinabove, the Opponent submits that the Applicant has failed to meet the requirements of Section 8 by failing to disclose the complete information as required under Section 8.

115. The Applicant has failed to convey the international search report and written opinion of international search authority issued in corresponding PCT application no. PCT/IB2018/056070 (Publication No.: WO/2019/043488)

116. Therefore, Applicant furnished incomplete information in respect of corresponding foreign patent applications to the Learned Controller.

117. In view of above, Opponent submits that Applicant has failed to comply with Section 8 of The Patents Act and that grant of a patent on the instant application ought to be refused on this ground only.

## **Submissions/arguments of the applicants:**

### 9. PRELIMINARY OBJECTIONS AND SUBMISSIONS

#### 1. NO EVIDENCE FILED BY THE OPPONENT

The Opponent has filed the opposition alleging that the invention as claimed in the Application No. 201721030943 is neither Novel nor involves any Inventive step, is not patentable under Section 3 of the Act, and does not sufficiently and clearly describe the invention as required under Section 10(4) of the Act. The Opponent has merely made bald allegations without any substantiation whatsoever. The Opponent has failed to show how said grounds of opposition are sustainable with respect to the invention as claimed in the instant application.

The Hon'ble Supreme Court in Anil Rishi v. Gurbaksh Singh, (2006) 5 SCC 558 has held that as per Sections 101 and 102 of the Evidence Act, 1872, the burden of proving a fact rests on the party who substantially asserts in the affirmative and not the party who denies it.

Further, it is submitted that the Hon'ble Bombay High Court in F & H v. Unichem, AIR 1969 Bom 225, while relying on the same principles of burden of proof in a patent case, has held that the onus in regard to all objections to validity lies on the person who has challenged the validity of the Patent.

It is submitted that the principle enunciated above applies to the present proceedings as well. The Opponent cannot fulfill its burden of proof by merely making bald allegations, but must discharge the burden by pleading specific facts and support the same with evidences.

Illustratively, reference may be had to the Hon'ble Intellectual Property Appellate Board (IPAB) decisions in Fresenius Kabi Oncology Limited vs. Glaxo Group Limited & Ors, (Order No. 161 of 2013) and The Travancore Mats & Matting Co. v. The Controller of Patents and Ors, (ORA/44/2009/PT/CH, Order No. 47 of 2012). The Applicant reserves the right to further substantiate this submission in the course of the oral hearing, if required, through additional arguments and case-laws.

Further, Section 79 of the Indian Patents Act clearly mandates that evidence' in any proceedings before the Controller of patents shall be given by affidavit. The nature of affidavit has clearly been prescribed by Rule 126 of the Indian Patent Rules. Therefore, in the absence of evidence having been filed along with the representation, the statements made therein cannot be relied upon, proving beyond any doubt that the Opponent failed to discharge its onus of proving the contents of its representation. Therefore, the pre-grant opposition should be dismissed in-limine.

## 2. BURDEN OF PROVING LACK OF NOVELTY NOT DISCHARGED BY THE OPPONENT:

It is most respectfully submitted that it is a well settled principle of Patent Law that in order to challenge novelty of the claimed invention on the basis of prior arts, it is necessary to prove that a prior art document relied upon to challenge the validity of a claimed invention unambiguously discloses each of the claimed features of the invention in such a manner that enables a skilled person to practice the invention without bearing the burden of further experimentation. In order to establish anticipation/lack of novelty, a party is required to plead and show that each and every feature as claimed in the challenged patent application was previously disclosed in its entirety in one single document in an enabling manner inasmuch as it is impermissible for a party to mosaic documents while agitating lack of novelty. Justice Vimadlal (High Court of Bombay) in *Farbwerke Hoechst and Ors. v. Unichem Laboratories and Ors.* (AIR 1969 Bom 255) held that –

15. That brings me to the next ground of alleged invalidity of the plaintiffs' patent viz. want of novelty. The test of novelty as formulated by Halsbury, (3rd edn.) Vol. 29 p. 27 para 58) is in the following terms: "To anticipate a patent, a prior publication or activity must contain the whole of the invention impugned; i.e., all the features by which the particular claim attacked is limited. In other words, the anticipation must be such as to describe, or be an infringement of the claim attacked."

Further, IPAB in *Sankalp Rehabilitation Trust v. F. Hoffmann-La-Roche AG and Anr.* (order 250/2012) held that –

"51. To defeat Novelty, the appellant should show that an earlier document, disclosed all that the patentee is seeking to patent. And that each limitation of the claimed invention is found in a single prior art reference. The appellant has not done this. So the attack on novelty is rejected."

Based on the aforesaid, it is crystal clear that the Opponent in the representation ought to evidentially show and prove that each of the features of claims of the present application is explicitly disclosed in the prior-art document relied upon by the Opponent, which the Opponent has miserably failed to do, and based on this reason alone, the present representation by way of opposition ought to be rejected at its threshold for the want of evidence.

## 3. BURDEN OF PROVING LACK OF INVENTIVE STEP NOT DISCHARGED BY THE OPPONENT:

Qua lack of inventive step, a party is required to establish that the claimed invention was obvious to a person skilled in the relevant art prior to the date of invention in view of the teachings of prior art documents, which are clearly taught and enabled so that a person skilled in the art would have been able to independently arrive at the claimed invention without any undue research & experimentation on his/her part. A document that merely addresses a problem, similar to the one being solved by the claimed invention, cannot be considered as a relevant prior art for the purpose of challenging patentability, if not a single example is provided therein for a solution to the problem.

In *F. Hoffman-La-Roche v. Cipla*, at para 118, Hon'ble Division Bench of Delhi High Court held that the following inquiries need to be made to prove obviousness/lack of inventive:

118. From the decisions noted above to determine obviousness/lack of inventive steps the following inquiries are required to be conducted:

Step No.1 To identify an ordinary person skilled in the art,

Step No.2 To identify the inventive concept embodied in the patent,

Step No.3 To impute to a normal skilled but unimaginative ordinary person skilled in the art what was common general knowledge in the art at the priority date.

Step No.4 To identify the differences, if any, between the matter cited and the alleged invention and ascertain whether the differences are ordinary application of law or involve various different steps requiring multiple, theoretical and practical applications,

Step No.5 To decide whether those differences, viewed in the knowledge of alleged invention, constituted steps which would have been obvious to the ordinary person skilled in the art and rule out a hindsight approach.

It is submitted that the Opponent has failed to identify/define a person skilled in the art for judging the inventive step of the claimed invention; the Opponent failed to identify the inventive concept embodied in the patent; the Opponent also failed to identify what was common general knowledge as of the earliest priority date of the instant patent application; and the Opponent further miserably failed to identify the differences between the teachings of the purported prior-art documents relied upon in its representation and the invention as claimed in the instant application, rather, the Opponent has, in a vague and obscure manner, merely made bald statements on lack of inventive step by cherry picking one or more features from different documents, in as much as, the Opponent has relied upon 7 purported prior-arts without

even substantiating on how and why a person skilled in the art would be motivated to combine the teachings of these large number of completely unrelated documents, and how the person skilled in the art would arrive at the claimed invention.

Aforesaid submissions prove beyond any iota of doubt that the Opponent miserably failed to discharge its burden of proving that the claimed invention lacks inventive step, and based on this reason alone, the present representation ought to be rejected at its threshold for the want of evidence.

#### 4. BURDEN OF PROVING LACK OF INVENTIVE STEP NOT DISCHARGED BY THE OPPONENT:

With regards the ground of insufficiency of disclosure, it is settled position in law that the specification and claims are addressed to those with a high degree of knowledge of the field of science to which they relate (i.e. a person skilled in the art), and accordingly, for challenging the validity of the claimed invention based on the ground of insufficiency of disclosure, the Opponent ought to prove that the description of instant application is not sufficient to enable a person skilled in the art to carry it into effect and/or the description is difficult to follow, vide evidence(s). Absence of the evidence(s), the averments of the Opponent are nothing but unsubstantiated statements.

It is noteworthy that the Opponent has not filed any evidence in the present opposition and accordingly, the averments of the Opponent ought to be dismissed in-limine for the want of evidence.

#### 5. APPLICANT'S PLEA TO FILE FURTHER SUBMISSIONS/EVIDENCE IS CONTRARY TO THE PROVISIONS OF THE PATENTS ACT AND LAW OF LAND

The Applicant strongly opposes the Opponent's plea to be permitted to file further submissions, as allowing the Opponent to file further evidences/submissions would only result in delay of the opposition proceedings, immensely prejudicial to the Applicant. It is settled position in law that amendments of the pleadings are only to be allowed when sufficient cause is shown by the party proving that the documents/evidences could not be filed earlier by the party enumerating detailed reasoning therefor. It is settled position in law that amendment of the pleadings is not to be granted as a matter of right to the party, as otherwise the proceeding gets prolonged ad-indefinitum at the behest of mala fide intention of a party to the proceeding. The Applicant reserves the right to further substantiate the aforesaid basis of the case laws during the hearing.

Without prejudice to the aforesaid, the Applicant further submits that since a pre-grant opposition is just an aid in examination of the application, the Controller's consideration of any further amendments can easily be taken care of by the Controller without filing of further frivolous submissions which will only serve to prolong the instant proceedings and defeat the purpose of the pre-grant opposition system. Without prejudice to the foregoing, the Applicant seeks to give para-wise response to averments of the Opponent in succeeding part of the present reply statement. The Applicant has responded therein to the meritless and frivolous challenges raised by the Opponent under each of the purported prior-arts, by describing the exact disclosures and teachings of each of the alleged prior arts, while differentiating them with the novel invention as claimed in the instant patent Application. The correct teachings of the purported prior art documents would categorically show the frivolity of the present opposition as well as erroneous reading of the purported prior art documents as filed and put forth by the Opponent.

#### PARAWISE REPLY TO THE OPPOSITION ON MERITS

1. The content of the paragraph 1 does not merit reply.

2-8. The contents of the paragraphs under reply are a matter of record and are not denied to the extent they exactly reflect matters of record. Anything to the contrary is denied as being incorrect.

9. It is vehemently denied that the background section of the instant application neither discusses prior art(s) nor is relevant to the alleged invention. Bare perusal of the background section clearly shows that the background section explicitly discloses the shortcomings in the state of art, making it crystal clear that the averments in the paragraph under reply is devoid of any substance.

10-13. The contents of the paragraphs under reply are a matter of record and are not denied to the extent they exactly reflect matters of record. Anything to the contrary is expressly denied as being incorrect.

14-17. The contents of the paragraphs under reply do not warrant any reply to the extent that they can be reliably traced to the First Examination Report (FER) issued by the Ld. Controller on 29th March, 2019, and the response to the FER filed by the Applicant dated 25th April, 2019. Anything contrary to the record is denied expressly as being incorrect.

However, with reference to contents of paragraph 15, it is denied that the invention as claimed in the instant application can be categorized into different groups, either as alleged or otherwise. It is settled position

in the law that independent claim(s) recites a single invention that define(s) boundaries of the protection sought, and dependent claim(s), dependent either directly or indirectly onto the independent claim(s), inherently recite limitations of the independent claim onto which they depend, and hence, segregation of a single invention into different groups, as mischievously suggested by the Opponent, is clearly contrary to the well-established principles of the patent law.

18-19. The Applicant vehemently denies veracity of the averments made by Opponent in the paragraphs under reply. It is submitted that the Opponent is trying to mislead the Hon'ble Controller by contorting the claims of the instant application to their own imagination. Firstly, the amended claims of the instant application are not two-part claims, as alleged by the Opponent or otherwise; secondly, bare perusal of claim 1 makes it explicitly clear that the feature identified and recited by the Opponent is in conjunction with "an image processing unit..." appearing preceding the recited portion, apparent from bare reading of the claim 1, wherein it recites that "an image processing unit, which when executed by one or more processors, analyzes, in each of said one or more of the plurality of iterations, said at least one image of the gemstone with respect to one or a plurality of gemstone parameters, wherein the image processing unit is further configured to compare, in each of said one or more of the plurality of iterations, the one or a plurality of analyzed gemstone parameters with one or a plurality of predetermined gemstone parameters to generate the feedback signal to be transmitted to the gemstone polishing unit.". Accordingly, it is apparent that recital of portion succeeding "wherein" is only to highlight that the image processing unit is further configured to compare in each of said one or more of the plurality of iterations, the one or a plurality of analyzed gemstone parameters with one or a plurality of predetermined gemstone parameters to generate the feedback signal to be transmitted to the gemstone polishing unit. Based on the aforesaid, it is patently clear that the averments of the Opponent in the paragraphs under reply are devoid of any substance, and are liable to be out-rightly rejected for being incorrect.

20-23. The Applicant vehemently denies veracity of the averments made by Opponent in the paragraphs under reply. It is submitted that the averments of the Opponent in paragraphs under reply are nothing but mere figments of the imagination, essentially, far-fetched statements amounting to over-simplification of the claimed invention to suit the position of the Opponent, without any valid basis or even application of



mind. Nowhere in the complete specification, response to FER or Written statement to hearing, had the Applicant made any admission of the sort being erroneously projected by the Opponent.

GROUNDS OF OPPOSITION:

24. It is submitted that the contents of the said paragraph are fallacious and thus denied. It is most respectfully submitted that the grounds (i.e. 25(2)(g), 25(2)(b) u/s 25(2)(e), 25(2)(f) and 25(2)(h) of the Patents Act, 1970) enlisted in the present paragraph do not have any valid foundation with reference to the present application, and are frivolous in nature.

It is further submitted that each of the grounds enumerated in the instant paragraph have been specifically dealt with and rebutted herein-below by the Applicant, and reliance be placed on the same.

Further, it is submitted that the Opponent has conceded that the only grounds upon which the Opponent is placing reliance for the present opposition are the ones enlisted in the paragraph under reply and hence, the Opponent is barred from relying on any other grounds.

**Ground I: Section 25(1)(g): that the complete specification does not sufficiently and clearly describe the invention or the method by which it is to be performed**

25-55. At the outset, it is submitted that the contents of the said paragraph are denied for the want of evidence.

It is settled position in law, as enunciated by Justice Vimadala in *Farbwerke Hoechst AG and Ors. v. Unichem Laboratories and Ors.* (AIR 1969 Bom 255), that –

- (i) The specification and claims are addressed to those with a high degree of knowledge of the field of science to which they relate;
- (ii) The description must be sufficient to enable those in the industry concerned to carry it into effect "without their making further inventions", and the description must not be difficult to follow;
- (iii) It is not necessary to describe processes on the Claims to a specification when they are part of the common knowledge available to those skilled in the science who can, after reading them, refer to the technical literature on the subject for the purpose of carrying them into effect; and
- (iv) The party pleading insufficiency of disclosure ought to adduce the evidences showing that the description of invention as contained in a patent application is insufficient to enable those in the industry concerned to carry it into effect "without their making further inventions".

Refer to the operative part of the decision of Justice Vimadalal in the aforesaid case, as reproduced hereinbelow:

14. Dealing first with the ground of insufficiency of description it is stated in Halsbury, (3rd edn.) Vol. 29 p. 64 para 131 that the claim need only be as clear as the subject admits, and that a patentee need not so simplify his claim as to make it easy for infringers to evade it. It is further stated in that passage in Halsbury that the patentee's duty is not to prevent all possible argument as to whether there is or is not infringement in particular cases, but to enable the court to formulate the questions of fact to be answered. It is further stated in the same Volume of Halsbury (p. 66 para 138) that insufficiency of description has two branches, (1) the complete specification must describe "an embodiment" of the invention claimed in each of the claims and that the description must be sufficient to enable those in the industry concerned to carry it into effect "without their making further inventions"; and (2) that the description must be fair i.e. it must not be unnecessarily difficult to follow. There is no evidence led by the defendants to show that the statement in the body of the specification that the synthesis of the desired sulphonylurea may be obtained by eliminating sulphur with a heavy metal oxide or a salt thereof in an aqueous or alcoholic solution would present any difficulty. The specification and claims are addressed to those with a high degree of knowledge of the field of science to which they relate, particularly when they relate to chemistry and allied subjects. It is not necessary to describe processes on the Claims to a specification when they are part of the common knowledge available to those skilled in the science who can, after reading them, refer to the technical literature on the subject for the purpose of carrying them into effect. "An embodiment" of the invention is, therefore, in my opinion, sufficiently described in the plaintiffs patent and that description is not unnecessarily difficult to follow, it being sufficient to enable the invention to be carried into effect "without making further inventions".

Keeping in view, the settled position in patent law, it is manifest that the averments of the Opponent in the paragraphs under reply are baseless, and has no substance. It is submitted that averments of the Opponent ought to be rejected at its threshold for the want of evidence. Specifically, as can be seen from the decision of the Hon'ble High Court, the onus of adducing the evidence lies on the Opponent to prove that the specification of the instant application cannot enable a person skilled in the pertinent art to practice the claimed invention, which the Opponent has miserably failed, so much so, the Opponent has chosen

not to define the person skilled in the art, the pre-requisite to establish the ground of insufficiency, and based on this ground alone, the averments in the paragraphs under reply ought to be rejected at its threshold. Nonetheless, the Applicant draws kind attention of the Ld. Controller to the preposterousness of the averments of the Opponent, wherein the table below enumerates the exemplary statements of the Opponent to highlight the level of fallacy:

<b>Paragraph No. from the purported Opposition</b>	<b>Contentions of the Opponent</b>
<b>36.</b>	<i>"it is not clear from the description and / or drawings as to how and in which orientation the diamond can be placed in contact with said abrasive surface for performing the polishing operation."</i>

	<i>"configuration, position as well as operation of said abrasive surface is not described"</i>
<b>37.</b>	<i>"Moreover, it is not clear from the description and / or drawings as to how the gemstone holding unit 21 is operated and configured to polish the gemstone."  "It is not clear what actions will be performed by the holding unit 21 after receiving the feedback signal and how such actions will be performed."</i>
<b>38.</b>	<i>"the configuration, position as well as operation of said mandrel with respect to the base and / or abrasive surface is not described"</i>
<b>39.</b>	<i>"In paras 0039 &amp; 0040, the description refers to various known structural components of the robot / machine, such as a balk 1, a base 3, a head 5, a guide 6, pneumatic chuck 21 etc. However, their connection and operation with the alleged essential features i.e. capturing image, comparing with predetermined parameters and generating feedback, is not described."</i>
<b>40.</b>	<i>"It is also not clear from the description, how various drives mentioned in the description are connected with the processor"  "how feedback signal is transmitted from the processor to these drives for performing necessary operation"</i>
<b>41.</b>	<i>"However, it is not clear from the description how the image captured by the image capturing unit is used by the image processing unit"</i>
<b>42.</b>	<i>"The description also fails to disclose how the parameters of a diamond are deduced by the image processing unit from the analysis of image captured by the image capturing device"</i>

Without dwelling further into the issue of fallacy of averments of the Opponent, it is submitted that detailed construction of the claimed gemstone polishing robot and details of the claimed method of polishing of the gemstone is so described in the instant application that a person

skilled in the pertinent art (Emphasis Supplied), reading the instant application can practice the claimed invention without bearing the burden of undue experimentation.

The Applicant is pained to urge the Opponent to refer to the body of specification of the instant application (specifically, Para 0048 through 0052 of the instant application that explains the operation of polishing of a gemstone) before making such baseless statements. Any person having rudimentary knowledge of the gemstone industry, let alone, a person skilled in the pertinent art to which the instant application is addressed, can easily understand the meets and bounds of the claimed invention, and using the common general knowledge, existing as to the earliest priority date of the instant application, can easily practice the claimed invention after going through the present application, and hence, the instant application ought to be construed to fulfill the requirements prescribed under Section 10 of the Patents Act, 1970.

The Applicant submits that the Patents Act, 1970, as stand amended, does not cast a duty unto the Applicant to recite and explain the most basic tenets of the instrumentation/machine as being sought for by the Applicant, for example, the Opponent has contended that the description of the instant application does not teach on “how various drives mentioned in the description are connected with the processor and how feedback signal is transmitted from the processor to these drives for performing necessary operation” (see, para 40 of the representation of the Opponent) and that the description of the instant application does not teach on “Claim 7 refers to a chuck 12, clamp and a collet 13 of the gemstone holding unit. However, these components are merely indicated in Figure 1. The configuration of these components is neither clear from the description nor from Figure 1.” (see, para 52 of the representation of the Opponent), which are basic tenets of instruments commonly used in the gemstone industry and/or can be readily appreciated by a person skilled in the art after referring the relevant technical documents and hence, need not be described in detail in the complete specification. The Applicant reserves the right to further substantiate each of the individual issues raised in the paragraphs under reply, if required, with aid of further case laws.

**Ground II: Section 25(1)(b): that the invention so far as claimed in any claim of the complete specification has been published before the priority date of the claim- (i) in any specification filed in pursuance of an application for a patent made in India on or after the 1st day of January, 1912; or (ii) in India or elsewhere, in any other document: i.**

**Provided that the ground specified in sub-clause (ii) shall not be available where such publication does not constitute an anticipation of the invention by virtue of subsection (2) or subsection (3) of section 29** 56-64. The contents of the paragraphs under reply are vehemently denied for being meritless and without any valid reasoning or basis. It is submitted that the opponent has miserably failed in pleading specific facts and supporting the same with evidence, and has instead, merely made bald allegations.

It is most respectfully submitted that it is a well settled principle of Patent Law that in order to establish anticipation/lack of novelty, a party is required to plead and show that each and every feature as claimed in the challenged patent application is disclosed in its entirety in one single prior-art document in an enabling manner, inasmuch as it is impermissible for a party to mosaic documents while agitating lack of novelty.

Reliance is again placed on the decision of Justice Vimadalal (High Court of Bombay) in *Farbwerke Hoechst and Ors. v. Unichem Laboratories and Ors.* (AIR 1969 Bom 255), wherein it was held that –

15. That brings me to the next ground of alleged invalidity of the plaintiffs' patent viz. want of novelty. The test of novelty as formulated by Halsbury, (3rd edn.) Vol. 29 p. 27 para 58) is in the following terms: "To anticipate a patent, a prior publication or activity must contain the whole of the invention impugned; i.e., all the features by which the particular claim attacked is limited. In other words, the anticipation must be such as to describe, or be an infringement of the claim attacked."

Further, IPAB in *Sankalp Rehabilitation Trust v. F. Hoffmann-La-Roche AG and Anr.* (order 250/2012) held that –

“51. To defeat Novelty, the appellant should show that an earlier document, disclosed all that the patentee is seeking to patent. And that each limitation of the claimed invention is found in a single prior art reference. The appellant has not done this. So the attack on novelty is rejected.”

It is submitted that the purported prior-art IN'710 discloses a mere bruting system (Emphasis Supplied), particularly an automatic bruting system for shaping round brilliant diamond.

Any person with ordinary skills in the pertinent art (let alone, a person skilled in the art) would immediately realize that each of the bruting and polishing are patently different processes, so much so, separate machines are used for effecting bruting and polishing of the cut gemstone. “Bruting” as understood to a person skilled in the pertinent

art, refers to the a process of giving a predefined peripheral shape to the diamond before being actually polished (simply put, bruting is simply performed to make the rough stones round in shape, before the bruted diamond is subjected to the actually polishing operation), in contrast, "Polishing" is a critical step, require great expertise and precision, wherein pavilion mains, crowns, culet and table facet are added to the bruted gemstone/diamond to make a high grade gemstone/diamond with maximum brilliance.

Aforesaid fact is even acknowledged by Inventors of the IN'710, the purported prior-art document relied upon by the Opponent itself in the present opposition. Refer to the

**[IN'710 – Page 2, Field of Invention]**

*The present invention relates to a bruting system, particularly to automatic bruting system for shaping round brilliant diamond before polishing.*

**[IN'710 – Page 5, Detailed Description of the present invention]**

*The present invention relates to an automatic bruting system for shaping round brilliant diamonds, before polishing - integrating, on-machine centering, girdle digging information and cavity mapping. Means are provided to know the orientation of future facets and identify and also to consider for cavity locations and depth.*

*Bruting is a process of giving a predefined peripheral shape to the diamond. This profile defines the shape of the diamond. Automatic bruting system has the "on-machining" facility for planning and centering thereby minimizing the substantial micron loss in girdle while bruting.*

Based on the aforesaid submissions alone, it is manifest that the purported prior-art document IN'710 fails to teach or even remotely suggest a person skilled in the art to arrive at the claimed automatic gemstone polishing machine and the claimed method of polishing the gemstone, let alone, other features as recited as part of the claims, and at least for this reason alone, the claimed apparatus and method are Novel over the disclosure of IN'710.

**Ground III: Section 25(1)(e): that the invention so far as claimed in any claim of the complete specification is obvious and clearly does not involve any inventive step, having regard to the matter published as**

**mentioned in clause (b) or having regard to what was used in India before the priority date of the applicant's claim**

65. Without prejudice to the preliminary objections and submissions, it is submitted that it is a cardinal principle of the Patent Law that in order to challenge patentability of a patent Application on the ground of lack of inventive step on the basis of prior arts, it is imperative to prove that the prior art documents relied upon to contest validity of the claimed invention unambiguously disclose, alone or in combination, all the features of the claimed invention in a manner that enables a skilled person to arrive at the claimed invention without bearing the burden of experimentation and with reasonable expectation of success.

In order to establish lack of inventive step, the Opponent is required to establish that the claimed invention was obvious to a person skilled in the relevant art, prior to the date of invention in view of the teachings of prior art documents, which are clearly taught and enabled so that a person skilled in the art would have arrived at the patented invention with reasonable expectation of success and without any undue research & experimentation on his/her part.

The Opponent draws kind attention of the Ld. Controller to the decision of Hon'ble IPAB in Enercon vs Aloys Wobben (ORA/08/2009/PT/CH, Order No. 123 of 2013), wherein it was held that -

43. The mere existence in the prior arts, of each of the elements in the invention, will not ipso facto mean obviousness. For after all most inventions are built with prior known puzzle-pieces. There must be a coherent thread leading from the prior arts to the invention, the tracing of the thread must be an act which follows obviously. We must apply this reasoning to test if indeed it is obvious, or if it seems to us to be obvious to the person skilled in the art because of what we know now. If it is the latter, it is hindsight deduction and is not acceptable, but if it is the former, then the patent must go.

Accordingly, it is crystal clear that for proving obviousness, one must prove that there exists a coherent thread of teachings leading from the prior-art documents to the presently claimed invention. It is humbly submitted that none of the cited prior-art documents, either read alone or in combination with each other, disclose or teach the novel and inventive automatic gemstone polishing robot and method of polishing as claimed in the instant patent Application.

66. In the paragraph under reply, the Opponent has listed out the purported prior art documents relied upon in the present opposition. It is submitted that none of the documents mentioned in the paragraph



under reply is relevant for assessment of patentability of the claimed invention. Noteworthy is the fact that majority of the documents do not even relate to the field of gemstone polishing, let alone, existence of coherent thread of teachings from these documents, invariably leading to the claimed invention. This is apparent from the following table:

<b>Documents relied upon in the present opposition</b>	<b>Teaching</b>
<b>IN 242710</b>	Automatic diamond <u>bruting</u> system
<b>US 5504303A</b>	A <u>laser apparatus</u> for measuring and ablating the surface of a diamond
<b>WO1997025177A1</b>	A <u>laser marking</u> system
<b>EP1511597B1</b>	A laser diamond <u>blocking</u> machine
<b>JP2005125441A</b>	A <u>grinding machine</u> for grinding a gemstone <u>relying on contact between the rim of the holder with the scaife</u>
<b>613/KOL/2004</b>	A <u>device for controlling the movement of a polishing assembly</u> during the grinding process of gemstones
<b>1633/DELNP/2004</b>	System and method for automatic gemstone polishing

67-68. Provisions of Section 2(1)(ja) are a matter of record and merits no response. It is denied that the invention claimed in claims of the instant application lacks inventive step in view of IN 242710, as alleged or otherwise. As submitted supra, IN'710 has no relation, whatsoever, with the claimed gemstone polishing machine and/or the claimed method of polishing the gemstone.

It is noteworthy that any person reasonably skilled in the pertinent art would appreciate that configuration/construction of the gemstone bruting machine and that of the gemstone polishing machine are patently different, exemplary differences being – the bruting machine typically make use of a rubbing diamond for effecting bruting of the gemstone under process, whereas the polishing machine make use of an abrasive surface such as rotating scaife; and the holder/arm of the bruting machine is always configured with limited movement for precluding the alignment errors arising therefrom, whereas the holder/arm of the polishing machine ought to have more degrees of freedom so that the gemstone under polishing can be oriented in any desired angular position with respect to the abrasive surface, the reason

sufficient to drive a person skilled in the art away from such remote and incidental teachings. It is reiterated that merely because a feedback system was employed in a machine, completely different, both in the construction and in the function, employs a feedback mechanism cannot ipso facto be a reason to motivate a person skilled in the art to venture into the unknown territory, more so, when the state of art known devices suffer from the inherent disadvantage of lack of accuracy at least for several decades if not more. Bare perusal of the construction of device of the purported prior-art document IN'710 and that of the presently claimed invention would lay bare the aforesaid fact –

Bruting machine of IN'710

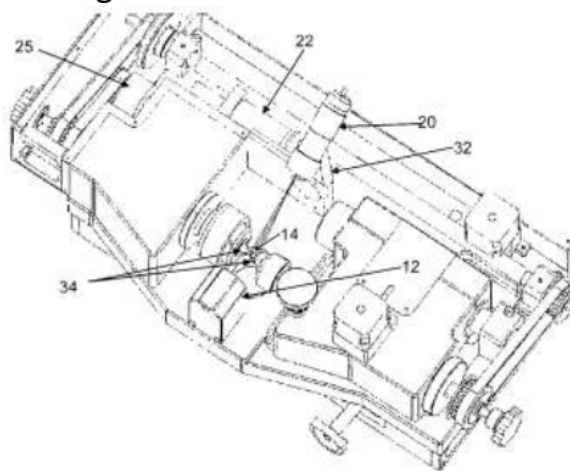
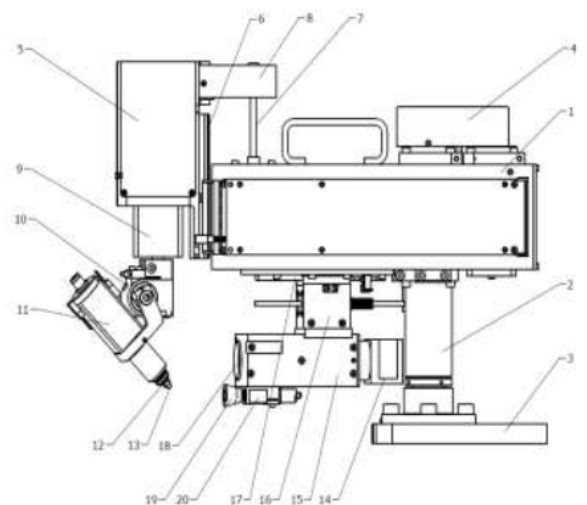


Figure 1

Polishing Robot of present Appl.



It is submitted that the analysis and analogy derived by the Opponent is clearly borne out of the hindsight, using the presently claimed invention as a blue-print, wherein the Opponent has firstly, dissected the claimed invention into individual piece-meals, cherry picked the feedback mechanism, and then alleging that merely because the feedback system was known in the art, the claimed invention is obvious, irrespective of the constructional, functional or other differences between the claimed invention and the purported prior-art documents.

Based on submissions supra, it is manifest that a person skilled in the art would have never even consulted the purported prior-art IN'710 for the reasons enumerated above at the first place. Even if one assumes, arguendo, that a person skilled in the art would have read the purported prior-art IN'710, he would not be able to arrive at the claimed gemstone polishing robot and the method as claimed in the instant application. Accordingly, the claimed invention is novel and inventive over the disclosure of IN'710.

69-73. The contents of the paragraphs under reply are vehemently denied for being meritless and without any valid reasoning or basis. It is denied that the US Granted Patent No US 5504303A, filed on December 12, 1994 and granted on April 02, 1996, (referred as US'303) affects the Inventive step of the claimed invention, as alleged or otherwise.

The Applicant submits that US'303 merely discloses a laser apparatus for measuring and ablating the surface of a diamond, which has no relation, whatsoever, with the claimed gemstone polishing apparatus or claimed method for polishing the gemstone. As the teachings of US'303 has nothing to do with polishing of the gemstone, the question of addressing the technical problem of improving the accuracy of polishing does not arise at all.

Contrary to the claimed invention, US'303 merely teaches on how to smoothen the diamond, specifically, it teaches that the profilometer laser measures the thickness of a diamond sample and compares it to the desired thickness. Where the measured thickness is too large, the feedback control unit activates the ablating laser for a predetermined time interval to smoothen any irregularities which may be contributing to the diamond sample thickness, making it crystal clear that the purported prior-art document US'303 cannot, by any stretch of imagination, be construed, in the eyes of a person skilled in the art, to be relevant to the field of gemstone polishing, let alone, aiding the person skilled in the art facing with the technical problem of how to improve the accuracy of the gemstone polishing machines to arrive at a solution. Nonetheless, solely in the interest of answering to the averments of the Opponents, howsoever absurd they are, it is submitted that US'303 fails to disclose several claimed features of the instant patent Application, exemplary being recited herein-below:

- a) The instant Application is directed towards a fully automatic gemstone polishing robot, whereas the US'303 is directed towards a laser guided diamond smoothening apparatus;
- b) The instant Application discloses utilization of an abrasive surface for polishing the diamond, whereas US'303 does not disclose polishing at all, rather teaches to utilize an ablation laser for smoothening the diamond;
- c) In the instant Application, pre-determined gemstone parameters are selected from table size, crown angle, crown depth, girdle diameter, pavilion angle, pavilion depth, number of facets, size of facet, proportion of facets, halves, angle of facet and mutual positioning of facets (relevant for the polishing of gemstone), whereas US'303 has nothing to

do with analyzing any of the parameters relevant for polishing of the gemstone.

Based on the aforesaid, it is evident that US'303 not only fails to teach, motivate or even suggest a person skilled in the art to use an imaging device (a camera) to capture at least one image of the gemstone during the polishing operation, but also fails to disclose that the apparatus that analyzes the captured image with respect to gemstone parameter(s) by an image processing unit, compares the analyzed gemstone parameters with pre-determined gemstone parameters by the image processing unit, transmits a feedback signal, based on the comparison, to a gemstone polishing unit, which guides the machine to carry out polishing of the gemstone based on the feedback signal to improve efficiency of the polishing maneuver.

In view of the above submission, it is evident that the invention as defined in Claims of the instant patent Application is novel and inventive over the disclosure and teachings of US'303.

74-77. The contents of the paragraphs under reply are vehemently denied for being meritless and without any valid reasoning or basis. It is denied that the WO published Application No WO1997025177A1, filed on November 14, 1996, (referred as WO'177) affects the Inventive step of the claimed invention, as alleged or otherwise.

At the outset, the document WO'177 discloses a laser marking system, which has no relation, whatsoever, with the claimed gemstone polishing apparatus.

With reference to teachings of WO'177, it is submitted that teachings of WO'177 has nothing to do with polishing of the gemstone, let alone, improvement in its accuracy of the polishing operation, rather it aims to merely monitor the progress of the marking process (please refer to abstract and summary at page 4, lines 21-25 of WO'177). It is further submitted that the optical feedback system in WO'177 teaches to monitor the progress of the marking process, and based on the input from the pre-determined program it adjusts the workpiece position and the inscription speed, number, intensity and or rate of pulses at a given location, not relevant, by any stretch of imagination, to the gemstone polishing. This reason alone is sufficient for a skilled person to consider WO'177 to be completely irrelevant to solve the technical problem being faced by him.

From the above submission it is clearly visible that WO'177 fails to teach, motivate or even suggest a person skilled in the art to arrive at a polishing robot and or method that - captures at least one image of the

gemstone during the polishing operation, analyzes the captured image with respect to gemstone parameter(s), comparing the analysed gemstone parameters with pre-determined gemstone parameters, transmitting a feedback signal, based on the comparison and dynamically control each polishing iteration based on the comparison to efficiently carry out polishing of the gemstone, as claimed in the present application.

Accordingly, there does not arise a question of the claimed invention being obvious to a person skilled in the art in view of teachings of WO'177.

78-81. The Applicant submits that the contents of the paragraphs under reply are devoid of any merits. It is denied that the EP Granted Patent No EP1511597B1, filed on February 06, 2003, (referred as EP'597) affects the Inventive step of the claimed invention, either as alleged or otherwise.

At the outset, it is submitted that EP'597 merely discloses a laser diamond blocking machine that make use of a laser ablation technique, which has nothing to do with the diamond polishing operation, the reason sufficient to drive a person skilled in the art away from looking into the teachings of EP'597.

Further, it fails to disclose an abrasive surface for polishing the diamond, a holding unit with a means for supporting a gemstone in contact with an abrasive surface, and a mandrel, the structural components of the claimed machine/apparatus. Needless to mention, when the disclosed machine does not even disclose the basic structural features of the claimed apparatus, there does not arise a question of capturing image of a gemstone and comparing parameters of the gemstone from captured image with predetermined parameters to obtain a feedback signal and/or controlling the polishing operation based thereon.

Based on submissions supra, it is crystal clear that document EP'597 is not a relevant prior-art for assessment of inventive step of the instant patent Application, as alleged or otherwise, and hence, using the teachings thereof with any other purported prior-art documents, which are also not relevant for the gemstone polishing operation (much less, the gemstone polishing apparatus), cannot lead a person skilled in the art to the claimed invention.

82-86. The contents of the paragraphs under reply are vehemently denied for being meritless and without any valid reasoning or basis. It is denied that the JP published Application No JP2005125441A, filed on October 22, 2003, (referred as JP'441) affects the Inventive step of the

claimed invention in any manner. Bare perusal of contents of JP'441 makes it explicable clear that a person skilled in the art facing the technical problem being solved in the present invention would not rely on the teachings of the purported prior-art document JP'441, at least for the reasons that - JP'441 teaches to rely on a manual cut surface angle setting means for setting an angle of the cut, it teaches to rely on detection of contact between the holding shaft 18 with the grinding wheel 43 and the likes, clearly contrary to the invention as claimed in the present application. It is further submitted that, it is completely incorrect and frivolous on the part of Opponent to refer and combine the documents that don't have any relation with each other, much less, to the field of claimed invention, and allege lack of inventive step based thereon. Needless to mention, the Opponent has failed to show how a skilled person can combine the teachings of one or more purported prior-art documents to guide and lead him to the invention claimed in the present Application. Thus, it is most humbly submitted that a person skilled in the art will not be enabled by the remote and incidental teachings of the document JP'441 and other purported prior-art documents to arrive at or perform the claimed invention.

87-90. The contents of the paragraphs under reply are vehemently denied for being meritless and without any valid reasoning or basis. It is denied that the IN patent Application No 613/KOL/2004, filed on September 30, 2004, (referred as IN'613) affects the Inventive step of the claimed invention, as alleged or otherwise.

At the outset, it is submitted that the disclosure of IN'613 has nothing to do with gemstone polishing robot or method of polishing of gemstone, rather, it merely discloses a device for controlling the movement of a polishing assembly that includes a vertical rod and a means to move the vertical rod (with which a tang holding a diamond is affixed). Bare perusal of the contents of this purported prior-art document makes it clear that a simple rod operatively coupled with a motor as disclosed therein cannot be equated to the gemstone polishing robot as claimed in the present application by any stretch of imagination.

Needless to mention, a person skilled in the art facing the technical problem of how to improve accuracy of the gemstone polishing operation would not find any motivation to read through such completely non-related purported prior-art documents, much less, combine teachings thereof with any other such non-related prior-art documents relied upon by the Opponent to solve the technical problem.

At the cost of repetition, it is submitted that it is completely incorrect and frivolous on part of the Opponent to refer to and rely upon the documents that do not have any relation either with each-other or to the claimed invention. Needless to mention, the Opponent has miserably failed to show how a skilled person would combine the disclosures of the documents relied upon in the present representation, and has also failed to show how such alleged combination would lead to the invention claimed in the present Application. Thus, it is most humbly submitted that a person skilled in the art will not be enabled by the remote and incidental teachings of the document IN'613, either alone or in combination with other documents relied upon, to arrive at the claimed invention of the instant patent Application.

91-93. The contents of the paragraphs under reply are vehemently denied for being meritless. It is denied that the IN patent Application No 1633/DELNP/2004, filed on June 10, 2004, (referred as IN'1633) affects the Inventive step of the claimed invention in any manner.

Bare perusal of the purported prior-art IN'1633 makes it crystal clear that a gemstone polishing system that merely includes a tang, a polishing wheel, a vertical displacement element and an angular displacement element cannot be equated to the automatic robot of the present application, and based on this reason alone, a person skilled in the art would not find any motivation to imbibe the teachings of said purported prior-art document.

Nonetheless, solely to highlight exemplary differences between the claimed invention and the disclosure of IN'1633, it is submitted that –

1. IN'1633 teaches to rely on contact of the ring of pot holding the diamond with the polishing wheel to terminate the polishing process, one of the technical problems being solved in the presently claimed invention. Presumably, when a person skilled in the art is trying to solve a particular technical problem, he would have no motivation to look into the prior-art documents that exactly teaches the opposite i.e. when a person skilled in the art is aiming NOT to place reliance on contact of the ring of pot holding the diamond with the polishing wheel to terminate the polishing process, he would not have any motivation to refer to the purported prior-art documents that teaches to rely on contact of the ring of pot holding the diamond with the polishing wheel.

2. IN'1633 teaches to rely on one or more sensors to measure weight applied with the diamond on polishing wheel, displacement of diamond scribe touch point and a termination point of polishing of a facet of a diamond on polishing wheel, simply put, the whole teaching of IN'1633

revolves around using multiple sensors to indirectly measure positioning of the diamond and polishing rate of the diamond, the technical problem being solved in the present application, and hence, a person skilled in the art would not be motivated to use the teachings of the purported priorart document IN'1633.

From the above, it is patently clear that device of polishing of IN'613 has no relevance or resemblance, whatsoever, to the claimed automatic gemstone polishing robot and claimed method of polishing of gemstone. Thus, it is most humbly submitted that a person skilled in the art will not be enabled by remote and incidental teachings of the document IN'1633 either alone or in combination with any of the other purported prior-art documents relied upon in the present representation, to arrive at or perform the claimed invention or the embodiments claimed in dependent claims of the instant patent Application.

94-98. The contents of the paragraphs under reply are vehemently denied for being meritless and without any valid reasoning or basis. As established supra, independent claims 1 and 14 are novel and inventive over the teachings of purported prior-art documents relied upon by the Opponent. Each of the claims 2-13 and 15-18 are dependent, either directly or indirectly, on the independent claims 1 and 14, inherently reciting the limitations thereof, and for this reason alone, each of the claims 2-13 and 15-18 ought to be considered as novel and inventive over the disclosures of purported prior-art documents relied upon by the Opponent in the present opposition.

It is noteworthy that the Opponent has tacitly conceded in the representation that subject matter of each of the claims 4-7, and 9-13 are novel and inventive over the disclosure of the purported prior-art documents relied upon in the present opposition. It is also noteworthy that averments of the Opponent in paragraphs under reply are devoid of any merits, inasmuch as, bare reading thereof makes it crystal clear that these averments are clearly contrary to the established facts. Particularly, at paragraph 96 the Opponent alleged that "illuminating unit and cleaning units are integral part of a gemstone polishing machine", which is clearly contrary to the evidential facts, in that none of the purported prior-art documents relied upon by the Opponent disclose, teach or even remotely suggest to use illuminating unit and cleaning units as part of the gemstone polishing machine. This fact also flows logically, as the purported prior-art documents teach to rely on indirect methods of monitoring the polishing of the gemstone and hence, there is no point of employing illuminating unit and/or cleaning



unit. The inventors of the present application through rigorous research could found out that - utilization of illuminating unit would help in improving the efficiency of image capturing; and employing the cleaning unit aids in cleaning the gemstone before image of the gemstone (under polishing) is captured, both of which further accentuates the efficiency of the polishing by reducing the errors. None of the purported prior-art documents even remotely suggests on iteratively performing the overall polishing maneuver, let alone, dynamically controlling each of the iteration to improve the efficiency of the polishing and hence, the question of such advantageous features/embodiments recited in the dependent claims being obvious to a person skilled in the art does not arise at all, leave alone, forming part of the common general knowledge. Based on the aforesaid submissions, the Applicant prays the Ld. Controller to reject the averments of the Opponent for being frivolous.

**Ground IV: Section 25(1)(f): that the subject of any claim of the complete specification is not an invention within the meaning of this Act, or is not patentable under this Act .**

99-102. The contents of Paragraphs under reply are vehemently denied for being incorrect. As established supra, the claimed invention is novel and inventive over the purported priorart documents relied upon by the Opponent in the present opposition. The Applicant prays the Ld. Controller to place reliance on the foregoing paragraphs of the present reply statement to arrive at a categorical conclusion that the invention claimed in the present application is novel and inventive over the purported prior-art documents relied upon by the Opponent.

103-06. The contents of Paragraphs under reply are denied as being incorrect, vague and unsubstantiated. It is submitted that Section 3(d), 3(f) and 3(k) of the Act are not attracted in this case and the paragraphs under reply are liable to be summarily rejected as the Opponent has failed to establish how the claimed invention does not constitute an invention under Section 3 of the Patents Act 1970.

Particularly, with reference to Section 3(d) of the Patents Act, 1970, it is well settled that for alleging the ground of non-patentability, the party needs to evidentially prove that the claimed apparatus or machine was already known in the art and what is being claimed is nothing but mere new use or new property of the claimed device or machine. As established supra, each of the claimed gemstone processing robot and the method of polishing gemstone are novel over the purported prior-art documents, and hence, there does not arise a question of “mere new use of a known process, machine or apparatus”.

Based on this reason alone, it is manifest that the claimed invention does not fall within the ambit of Section 3(d).

107-10. It is denied that Section 3(f) is applicable to the claimed invention. The Opponent, by referring to Section 3(f) of the Act, merely asserts that the claimed invention is directed towards the mere re-arrangement of known automatic gemstone polishing robot. It is submitted that, with reference to assessment of the claimed invention against provisions of Section 3(f), the Manual of Patent Office Practice and Procedure (MPPP) published by The Office of Controller General of Patents, Designs & Trademarks, at page no. 86-88, prescribes that,

“In order to be patentable, an improvement on something known before or a combination of different matters already known, should be something more than a mere workshop improvement; and must independently satisfy the test of invention or an 'inventive step'. To be patentable, the improvement or the combination must produce a new result, or a new article or a better or cheaper article than before. A combination of old known integers may be so combined that by their working interrelation, they produce a new process or an improved result. Mere collocation of more than one integers or things, not involving the exercise of any inventive faculty, does not qualify for the grant of a patent. (Biswanath Prasad Radhey Shyam Vs. Hindustan Metal Industries (1979) 2 SCC, 511).”

“A new and useful application of an old principle may be good subjectmatter. An improvement on something known may also afford subjectmatter; so also a different combination of matters already known. A patentable combination is one in which the component elements are so combined as to produce a new result or arrive at an old result in a better or more expeditious or more economical manner. If the result produced by the combination is either a new article or a better or cheaper article than before, the combination may afford subject-matter of a patent. (Lallubhai Chakubhai Vs. Chimanlal and Co. (AIR 1936 Bom 99).)”

“A new combination may be the subject matter of a patent although every part of the combination, per se, is old, for here the new article is not the parts themselves but the assembling and working of the parts, together. The merit of a new combination very much depends upon the result produced. Where a slight alteration turns that which was

practically useless into what is useful and important, it is fit subject matter for a patent. (Lallubhai Chakkubhai v. Shamaldas Sankalchand Shah, AIR 1934 Bom 407).”

It is submitted that the claimed invention qualifies the parameters specified in the MPPP. That is to say that, firstly, in the light of the submissions made hereinabove, the claimed invention satisfies the test of ‘Novelty’ and ‘Inventive step’. Secondly, it is evident from a comparative reading of the instant patent Application and the purported prior-arts cited by the Opponent that - not only is the claimed invention more than a ‘mere workshop improvement’, the technology involved is far more superior, advanced, accurate and produces superior results. Without prejudice to the aforesaid, it is submitted that the claimed invention consists of features and systems/components/devices which are highly dependent on each other and do not work independently, and based on this reason alone, the invention claimed in the instant application does not fall within the ambit of Section 3(f) of the Act. The Applicant submits that the instant ground of opposition based on Section 3(f) of the Act is liable to be summarily rejected for being frivolous.

111-12. It is submitted that the averments in the paragraph under reply are frivolous and hence denied in-toto. It is most humbly submitted that the ground of claimed invention falling within the purview of Section 3(k) is neither substantiated by any evidence nor has any valid basis. It is submitted that it is a settled position in law, as enunciated in various decisions of Hon’ble IPAB as well as High Courts, that while assessing patentability of the claimed invention with reference to Section 3(k), the only inquiry that needs to be made is - whether the invention as claimed in a claim is nothing but a computer programme perse, and in case the answer is negative, there is no place for application of Section 3(k).

Hon’ble Delhi High Court in Ericsson vs. Intex (order in CS(OS) No.1045/2014 dated March 13, 2015) held that – “... any invention which has a technical contribution or has a technical effect and is not merely a computer program per se as alleged by the defendant and the same is patentable.”

IPAB Order (No. 224/2010) - Enercon Case: while dealing with a patent application having title “Method for controlling a wind turbine and a wind turbine”, IPAB observed: “This is normally a computer operated or computer controlled technical instrumentation processing of the utilities

to achieve the target in an automatic fashion and this technical process control associated with or directed to a computer set up to operate in accordance with a specified program (whether by means of hardware or software) for controlling or carrying out a technical process control such as the above, cannot be regarded as relating to a computer program per se or a set of rules of procedure like algorithms and thus are not objectionable from the point of view of patentability, more so when the claims do not claim, or contain any algorithm or its set of rules as such, but only comprise of some process steps to carry out a technical process or achieve a technical effect finally the maximum power output by..... Hence the objection that invention is not patentable under section 3(k) fails or not valid.”

Bare perusal of claims of the instant application makes it explicably clear that the claimed invention is a highly sophisticated and advantageous computer controlled technical instrument (i.e. gemstone polishing robot) to achieve the target (the desired polishing) in an automatic fashion and this technical process control (i.e. controlling the gemstone polishing) is associated with or directed to a computer set up to operate in accordance with a specified program (whether by means of hardware or software) for controlling or carrying out a technical process control, and accordingly, the claimed invention does not fall within the purview of Section 3(k) of the Act.

Even otherwise, the invention as claimed in the present application includes tangible structural features (mechanical components/devices), with reference numerals recited in the bracket there-against in each of the claims, and hence, by no stretch of imagination, the apparatus inclusive of devices/mechanical components can be equated to the computer programme per-se, and based on this reason alone, the Opponent’s agitation over the claimed subject matter falling within the purview of Section 3(k) is not tenable in the eyes of law.

Without prejudice to the aforesaid submissions, it is submitted that the Applicant, through detailed submissions supra, has evidentially proved that the structural features of the claimed apparatus and method are novel and inventive over the disclosure of the purported prior-art documents and for this reason also, the claimed invention does not fall within the purview of Section 3(k).

113. The Applicant vehemently denies veracity of the averments made in paragraph under reply. It is submitted that the sole aim of the Opponent in raising such fallacious grounds in the opposition is merely to delay the grant of a valid invention and cause immense prejudice to the Applicant.

It is submitted that the Opponent has filed a frivolous opposition and failed to elucidate how the ground for opposition as given under Section 25(1)(f) is made out against the present application. Thus, the present pregrant opposition is liable to be dismissed with heavy exemplary costs.

**Ground IV: Section 25(1)(h): that the applicant has failed to disclose to the Controller the information required by section 8 or has furnished the information which in any material particular was false to his knowledge**

114-18. It is most humbly submitted that the averments in the paragraphs under reply are frivolous, baseless and devoid of any substance. The prosecution history, as available on InPASS website clearly indicates that the Applicant had already filed Form-3 on April 25, 2019 inclusive of details of the published PCT Application. Even otherwise, the Applicant had filed the expedited request of examination, which could be filed by a corporate, not falling within the definition of start-up, only when a PCT Application is filed and IN is chosen as ISA, making it crystal clear that either the Opponent lacks even rudimentary knowledge of the prevailing patent laws or is making such baseless statements fraudulently and with mala-fide intention solely to cause delay in grant of the instant patent for the reasons best known to him. In view of the detailed submissions made as part of the present reply statement, the Applicant urge the Ld. Controller to summarily reject the instant frivolous representation filed by the Opponent.

**Consideration of grounds/submissions/arguments of both parties**

10. Having given the brief about the submissions made by the opponents on each of the grounds in the representation as well as the reply thereto by the applicants, now I shall consider each of the grounds, which have been relied upon by the opponent in the light of the arguments made in the hearing, written submissions and facts of the case including their replies and evidence of the expert including the other documents submitted by both parties. It has been observed that the opponents in their representation have relied upon the grounds namely
  - (a) Insufficiency of description
  - (b) Prior publication,
  - (c) Obviousness and lack of inventive step,

- (d) Not an invention within the meaning of the Act or not patentable under the Act, and
- (e) Failure to disclose the information required by section 8.

However, before considering each of the grounds let me consider the issue “BURDEN OF PROOF” taken up in the hearing. The burden of proving a fact is generally on the party relying on that fact. Once any party has submitted conclusive proof of its allegations, it has complied with the requirement of the burden of proof. The evidence need not prove the facts with absolute certainty in order to be deemed conclusive; it suffices that it proves that they are highly probable. If a party has discharged its burden of proof, the counterparty seeking to refute the conclusively established facts by way of counter-arguments bears the burden of proving the alleged facts. The burden of proof might shift constantly as a function of the weight of the evidence, i.e. if a party provided enough evidence to demonstrate a fact to the controller, the mere allegation of the contrary by the other party is not convincing. The “BURDEN OF PROOF” is not static in pre-grant opposition proceeding. Now I will consider each ground of the opposition as relied upon by the opponents.

**(a) Insufficiency of description :** The Opponent's Agent argued that the complete specification filed in impugned doesn't sufficiently and clearly describes the invention or the method by which it is to be performed. Complete specification filed with the impugned application is very vague and bitterly suffers from the lack of adequate description failing to provide either the complete description of the invention or the best method by which it is to be performed, thus doesn't enable a person skilled in the art to arrive at the claimed invention. The Applicant's Agent argued that All the features of the invention are clearly described to enable a person skilled in the Art to practice the invention. The claims are fully supported by description in the specification.

In my opinion, the Complete Specification is understandable and includes drawings with reference numerals. Particularly Para 40, 48-52 and 'Brief description of drawings' would enable a person skilled in the art to work the invention.

Therefore, it is concluded that the Opponent has not succeeded in this ground.

**(b) Prior publication:** IN 242710 discloses automatic diamond bruting system, which is required as a pre-processing step for gemstone processing. The claimed automatic gemstone polishing machine is polishing machine which is post processing step for gemstone processing. During hearing, the opponent's agent accepted that both steps are different. It is concluded that the opponent has not succeeded in this ground.

**(c) Obviousness and lack of inventive step:** On the ground of lack of inventive step, the Opponent relies on the following documents:

- a. D1: IN 242710 published on April 6, 2007
- b. D2: US5504303A published on April 2, 1996
- c. D3: WO1997025177A1 published on July 17, 1997
- d. D4: EP1511597B1 published on March 9, 2005
- e. D5: JP2005125441A published on May 19, 2005
- f. D6:613/KOL/2004 published on April 6, 20117
- g. D7: 1633/DELNP/2004 published on April 6, 20117

Opponent did not provide which combination of given prior arts will able to achieve the present invention.

Polishing of gemstone, positioning of facets of the stone, analysing the Gemstone parameters with pre-determined gemstone parameters, and transmitting a feedback signal, based on the comparison is not disclosed in prior arts provided by the Opponent.

Although D1 is disclosing most of the features of the present invention but because both are for different steps namely bruting and polishing, hence cannot be considered as inventive step killing document without any document having automatic gemstone polishing and the feedback signal for further processing.

Only D6 and D7 are particularly disclosing the polishing unit but combining the features of D1 (or D1-D) with D6 and/or D7 is not obvious because D6 is disclosing movement of a polishing assembly and D7 discloses rely on one or more sensors to measure weight applied with the diamond on polishing wheel only without any further analysis and feedback.

In my opinion, the above arguments of the Applicant's Learned Agent are agreeable. There is no possible way to take and combine the features of present invention in question from any of prior arts in any combination in an obvious manner.

**(d) Not an invention within the meaning of the Act or not patentable under the Act :** The Opponent's Agent is submitted that the application is not patentable under Section 3(d), 3(f) and 3(k) of the Patent Act.

I will consider the application with each subsection of section 3 of the act according to the objection raised by the opposition the opponents.

**Section 3 of The Act :** The following are not inventions within the meaning of this Act,—

3(d) the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.

Explanation.—For the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy;

The present application claiming gemstone processing robot and the method of polishing gemstone are novel over the prior-art documents, and hence, there does not an example of “mere new use of a known process, machine or apparatus”. Based on this reason, it is manifest that the claimed invention does not fall within the ambit of Section 3(d).

3(f) the mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way;

The claimed invention satisfies the test of ‘Novelty’ and ‘Inventive step’. It is evident from a comparative reading of the instant patent Application and the prior-arts cited by the Opponent that - not only is the claimed invention more than a ‘mere workshop improvement’, the technology involved produces superior results in terms of quality of gemstone. The claimed invention consists of features and systems/components/devices which are dependent on each other and not the mere arrangement.

3(k) a mathematical or business method or a computer programme per se or algorithms; In the opinion of Controller, even though there is contribution of image processing unit in the inventive step of the



application but in-toto amended claims 1-18 filed on 22/06/2019 with the does not fall within the ambit of Section 3(k).

**(e) Failure to disclose the information required by section 8:** Applicant had filed Form-3 on April 25, 2019 showing PCT Application no PCT/IB2018/056070 and publication WO 2019/043488.

After having considered all the circumstance of this case, representation for opposition, reply of the applicants, written submissions and arguments in the hearing made by both parties, I am of the opinion that the opponent could not succeed in any of their grounds and the alleged invention as clamed in the claims is patentable under the Patent Act 1970.

Conclusion: The patent application number 201721030943 having claims 1-18 filed on 22/06/2019 is granted under rule 55(5) of the Patent rules 2003 and rejecting representation of opposition made by the opponent under section 25(1) of the Patent Act 1970 and under rule 55(1) of Patent Rules 2003 based on the foregoing facts and views.

Dated this 21st day of January 2020

(Subhash Kumar Singh)  
Assistant Controller of Patents & Designs

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