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IN THE HIGH COURT OF JUDICATURE AT MADRAS

DATED : **12.11.2024**

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THE HON'BLE MR. JUSTICE ABDUL QUDDHOSE

(T) CMA (PT) No.198 of 2023 and (T) CMP (PT) No.21 of 2023

Idemia Identity & Security France .. Appellant

-vs-

1.The Controller General of Patents,
Designs & Trademarks,
Boudhik Sampada Bhawan,
Antop Hill, S.M.Road,
Mumbai - 400 037.

2.Assistant Controller of Patents & Designs,
Boudhik Sampada Bhawan,
Chennai-Theni Hwy, Guindy,
Chennai, Tamil Nadu - 600 032. .. Respondents

Prayer: This Civil Miscellaneous Appeal filed under Section 117-A of the Patents Act, 1970 prays that this Court may be pleased to call for the records of the patent application no.538/CHENP/2012 relating to the impugned order and issue an order setting aside/quashing the impugned order dated 22.06.2020 and direct the respondents to grant a patent on the patent application no. 538/CHENP/2012 allowing the present appeal and the appellant be allowed to amend, add or alter any ground of appeal and also be permitted to place on record relevant material including evidence in the form of an affidavit, written submissions and synopsis of case law.

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For appellant : Mr.Subbin and Vineet Rohilla
for M/s.Remfry and Sagar

For respondents : Mr.S.Janarthanam,
Senior Panel Counsel

JUDGMENT

This Appeal has been filed under Section 117-A of the Patents Act, 1970, aggrieved by the rejection order dated 22.06.2020, refusing to grant patent to the appellant on the ground that the so claimed invention of the appellant is not patentable as it is hit by Section 3(k) of the Patents Act, 1970.

2.The appellant claims that as seen from the Patent Application filed by the appellant before the respondents, it is clear that a technical contribution has been made by the appellant as the invention of the appellant pertains to 'Cryptography on a simplified elliptical curve', which according to the appellant is a unique invention. According to the appellant, the invention of the appellant for which patent has been sought for is illustrated in the following manner:

> *'In order to apply a cryptographic calculation to a message, conventionally algorithms are employed for inserting*

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arbitrary values into mathematical structures. For this purpose, the elliptical curves are mathematical structures that are able to facilitate the application of such cryptographic calculations and at the same time, save space in memory relative to the use of other cryptographic calculations. Efficient algorithms for inserting arbitrary values using elliptial curves are probabilistic. Therefore, the implementation time of such algorithms is not constant. It is a function of the message to be encoded. Thus, if an attacker determines different implementation times of the applied algorithm, it can obtain information on the encoded message. In order to mask the time used by a probabilistic insertion algorithm, it is possible to add unnecessary steps in the algorithm so that its application always spreads over a time period of the same length, regardless of the processed message'.

3.By using the above method and in order to mask the time used by the probabilistic insertion algorithm, the appellant claims that its invention is a technical contribution, made by the appellant and therefore, the reason for refusing to grant patent to the appellant's invention as seen from the impugned order is a total non-application of mind to the nature of invention for which patent was sought for by the appellant.

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4.Counter affidavit has been filed by the respondents reiterating the contents of the impugned order.

5.Learned counsel for the appellant drew the attention of this Court to the European Guidelines for examination of patent as well as the Guidelines framed by the Indian Patent Office for examining computer related invention. He would submit that it has been made clear in those guidelines insofar as the technical contributions of a patent seeker is concerned, the same will not fall under the category of inventions that are not patentable under Section 3(k) of the Patents Act, 1970.

6.The reason given by the respondents for refusing to grant patent in favour of the appellant is that being a mere "technical effect" adopted by the appellant, the question of granting patent to the appellant will not arise and if the same is granted, it will be in violation of Section 3(k) of the Patents Act, 1970. According to the respondents, since a mathematical formula has been adopted by the appellant, which has resulted in the appellant's so claimed invention, the question of granting patent to the appellant does not

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arise in view of the statutory bar under Section 3(k) of the Patents Act, 1970.

7.One more reason given by the respondents for refusing to grant patent in favour of the appellant is that the appellant has adopted "business method" for the purpose of claiming invention, which is not permissible under law as per Section 3(k) of the Patents Act, 1970.

8.Learned counsel for the appellant would further submit that insofar as the reason given by the respondents that the appellant's so claimed invention merely adopts a mathematical formula is concerned, he drew the attention of this Court to the CRI Guidelines, more specifically to Clause 4.5.1 and would submit that since the invention of the appellant specifies a practical application, though the appellant has adopted a mathematical formula, the finding rendered by the respondents under the impugned order that encryption/decryption system is not permissible under law as per Section 3(k) of the Patents Act, 1970 is arbitrary and not in accordance with law. According to the appellant, this case falls under one of the

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exceptions and the respondents ought not to have held in the impugned order that all inventions pertaining to encryption/decryption is not patentable. Learned counsel for the appellant also drew the attention of this Court to the European Guidelines for examination of patents applications and would submit that insofar as the technical applications, where technical contributions of a mathematical method is sought to be patented, are concerned, it is clear from the same that those technical contributions are patentable even in case of encryption/decryption. Therefore, the learned counsel for the appellant would submit that by total non-application of mind to the guidelines for examination of patent applications and by a non-speaking order, the respondents have passed the impugned order. He also drew the attention of this Court to the hearing notice issued by the respondents prior to passing of the impugned order and would submit that in the said hearing notice, it is seen that there was no reference to business method, which is not patentable under Section 3(k) of the Patents Act, 1970 but despite the same, the respondents have included that reason as well for refusing to grant patent.

9.Learned Standing Counsel for the respondents reiterated the

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contents of the impugned order and would submit that the case of the appellant falls under the category mentioned in Section 3(k) of the Patents Act and therefore, according to him, rightly, the respondents have refused to grant patent to the appellant under the impugned order.

Discussion:

10. According to Section 3(k) of the Indian Patent Act, mathematical processes and computer programs per se are explicitly excluded from being eligible for patent protection. The section above has undergone modifications and has been shaped by amendments and court rulings about the patentability of software-related innovations.

THE 2002 AMENDMENT

The inclusion of the word 'per se' in Section 3(k) of the Patents (Amendment) Act, 2002 was intended to clarify the patentability requirements for computer programs. Previously, the Act did not allow for the patenting of computer programs without any restrictions. The change made in 2002 included the term 'per se' to indicate that while computer programs are not eligible for patent protection, software innovations may be eligible for patents if they exhibit a 'technical application' or a 'technical

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impact.' Consequently, the amendment implemented the technical effect test as a criterion for determining the eligibility of software for patent protection.

11.As seen from the impugned order, the contentions of the appellant as raised in this appeal have neither been considered in accordance with the guidelines for examination of patent applications (CRI) nor a speaking order has been passed. The invention for which the appellant seeks for patent is 'cryptography on a simplified elliptical curve'.

12.According to the appellant, to prevent hacking of the coded message transmission, a unique invention through a simplified elliptical curve has been invented for which patent is sought for by the appellant. According to the appellant, the steps for the said invention exhibits a technical effect, as it requires only two terms of the equation remaining to be checked in order to decide which of the two terms correspond to a squared term in Fq, thereby enabling to determine a point on an elliptical curve in a manner suitable for use in the field of cryptography. According to the appellant, the steps of the method achieve an innovative technical effect, which is to allow a determination requiring a constant time regardless of the

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input parameter 't', as the number of required operations is the same and also achieve an improved efficiency as the number of demanding operations is reduced, thereby resulting in improvement in calculation performance, while not allowing any attack linked to the execution time of the cryptographic calculation.

13.However, as seen from the impugned order, the contentions of the appellant, as referred to supra, were not considered by the respondents. There is an exception to Section 3(k) of the Patents Act,1970 and as per the said exception, if the appellant's so claimed invention is a technical contribution made by them, the invention is patentable. The very same contention was raised by the appellant before the respondents. But, however, as seen from the impugned order, it has not been considered as no reason has been given under the impugned order as to why the contentions of the appellant has to be rejected. The European Guidelines as well as the Indian Guidelines pertaining to Patent Applications also make it clear that inventions involving technical contributions in computer related field are patentable. The relevant clauses in both the aforesaid Guidelines are re-produced hereunder:

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European Guidelines

Technical applications:

When assessing the contribution made by a mathematical method to the technical character of an invention, it must be taken into account whether the method, in the context of the invention, produces a technical effect serving a technical purpose.

Examples of technical contributions of a mathematical method are:

- controlling a specific technical system or process, eg. an X-ray apparatus or a steel cooling process:
- determining from measurements a required number of passes of a compaction machine to achieve a desired material density;
- digital audio, image or video enhancement or analysis, e.g. de-noising, detecting persons in a digital image, estimating the quality of a transmitted digital audio signal;
- separation of sources in speech signals; speech recognition, e.g. mapping a speech input to a text output;
- encoding data for reliable and/or efficient transmission or storage (and corresponding decoding), e.g. error-correction coding of data for transmission over a noisy channel, compression of audio, image, video or sensor data;

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- **encrypting/decrypting or signing electronic communications, generating keys in an RSA cryptographic system;**
- optimising load distribution in a computer network;
- determining the energy expenditure of a subject by processing data obtained from physiological sensors; deriving the body temperature of a subject from data obtained from an ear temperature detector;
- providing a genotype estimate based on an analysis of DNA samples as well as providing a confidence interval for this estimate so as to quantify its reliability;
- providing a medical diagnosis by an automated system processing physiological measurements.

Indian Guidelines

4.5. Determination of excluded subject matter relating to CRIs:

Since patents are granted to inventions, whether products or processes, in all fields of technology, it is important to ascertain from the nature of the claimed Computer-related invention whether it is of a technical nature involving technical advancement as compared to the existing knowledge or having economic significance or both, and is not subject to exclusion under Section 3 of the Patents Act.

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The sub-section 3(k) excludes mathematical methods or business methods or computer programme per se or algorithms from patentability. Computer programmes are often claimed in the form of algorithms as method claims or system claims with some 'means' indicating the functions of flow charts or process steps. It is well-established that, while establishing patentability, the focus should be on the underlying substance of the invention and not on the particular form in which it is claimed.

What is important is to judge the substance of claims taking whole of the claim together. If any claim in any form such as method/process, apparatus/system/device, computer program product/computer readable medium falls under the said excluded categories, such a claim would not be patentable. However, if in substance, the claim, taken as whole, does not fall in any of the excluded categories, the patent should not be denied.

Hence, along with determining the merit of invention as envisaged under Sections 2(1) (j), (ja) and (ac), the examiner should also determine whether or not they are patentable inventions under Section 3 of the Act.

4.5.1 Claims directed as "Mathematical Method": Mathematical methods are a particular example of the principle that purely abstract or intellectual methods are not patentable. Mathematical methods like method of calculation, formulation

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of equations, finding square roots, cube roots and all other similar acts of mental skill are therefore, not patentable. Similarly mere manipulations of abstract idea or solving purely mathematical problem/equations without specifying a practical application also attract the exclusion under this category.

However, mere presence of a mathematical formula in a claim, to clearly specify the scope of protection being sought in an invention, may not necessarily render it to be a "mathematical method" claim. Also, such exclusions may not apply to inventions that include mathematical formulae and resulting in systems for encoding, reducing noise in communications/ electrical/electronic systems or encrypting/decrypting electronic communications.

4.5.2 Claims directed as "Business Method": The term 'Business Methods' involves whole gamut of activities in a commercial or industrial enterprise relating to transaction of goods or services. The claims drafted not directly as "business methods" but apparently with some unspecified means are held non-patentable. However, if the claimed subject matter specifies an apparatus and/or a technical process for carrying out the invention even partly, the claims shall be examined as a whole. When a claim is "business methods" in substance, it is not to be considered a patentable subject matter.

However, mere presence of the words such as "enterprise",

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"business", "business rules", "supply-chain", "order", "sales", "transaction", "commerce", "payment" etc. in the claims may not lead to conclusion of an invention being just a "Business Method", but if the subject matter is essentially about carrying out business/trade/financial activity/transaction and/or a method of buying/selling goods through web (e.g. providing web service functionality), the same should be treated as business method and shall not be patentable.

14.Under the impugned order, the exceptions as highlighted in the Indian and European guidelines, which the appellant claims its invention falls, has not been considered under the impugned order by a speaking order. Insofar as the reason "adoption of business method" given by the respondents under the impugned order is concerned, is also not supported by a speaking order. Further, it is to be noted that even in the hearing notice issued to the appellant by the respondents prior to the passing of the impugned order, the said reason was not mentioned to enable the appellant to counter the same by filing its objections to the said ground. Therefore, being a non-speaking order, necessarily, the impugned order has to be quashed and the matter has to be remanded back to the respondents for fresh consideration.

15.The other reason given by the respondents, namely, adoption of

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algorithms by the appellant in its so claimed invention is concerned, this Court is of the considered view that the respondents have not taken into consideration the contentions of the appellant, which are as follows:

'As per Computer Related Invention Guidelines (V.3.0) published by the PO in 2017 Algorithm means, "a set of rules that must be followed when solving a particular problem". According to the appellant, its invention is not based on set of rules as several technical contributions have been made by the appellant on its own and its practical application has not been given due consideration under the impugned order'.

16.This Court, after giving due consideration to the contents of the impugned order, has to agree with the contentions of the appellant that the respondents failed to consider the plea of the appellant that the invention claimed by the appellant is not based on set of rules and is not an algorithm.

17.For the foregoing reasons the impugned order dated 22.06.2020 passed by the respondents, being a non-speaking order with regard to the contentions of the appellant as raised in this appeal and on the ground of violation of principles of natural justice since the appellant was not put on

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notice in the notice of hearing about the alleged "business method contention", is quashed and the matter is remanded back to the respondents for fresh consideration of the appellant's patent application, on merits and in accordance with law and this appeal is disposed of by issuing the following further directions:

a)In order to preclude the possibility of pre-determination, an Officer other than the officer, who issued the order impugned herein shall undertake re-consideration;

b)Such re-consideration shall be undertaken by taking into account observations set out in this judgment;

c)Amendments, if any, to the complete specification or claims shall be permitted if within the frame work of the complete specification;

d)A fresh order in Indian Patent Application No.538/CHENP/2012

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shall be issued within six months from the date of receipt of a copy of this order.

No costs. Consequently, connected petition is closed.

12.11.2024

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Index: Yes/No
Speaking/Non Speaking Order
Neutral Citation Case: Yes/No

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12.11.2024

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