

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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**Ex parte** GREGORY CLAYTON ESLINGER and  
MARK LEONARD BUER

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Appeal No. 2003-0033  
Application No. 09/186,546

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ON BRIEF

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Before KRASS, DIXON, and GROSS, **Administrative Patent Judges**.  
DIXON, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is a decision on appeal from the examiner's final rejection of claims 1-6 and 9-14, which are all of the claims pending in this application.

We REVERSE.

## BACKGROUND

Appellants' invention relates to a secure memory management unit which uses multiple cryptographic algorithms. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A method by which an integrated circuit accesses first encrypted data stored in a first external memory and accesses second encrypted data stored in a second external memory, the first external memory and the second external memory being external to the integrated circuit, the method comprising the following steps:

(a) when accessing a first portion of the first encrypted data stored in the first external memory, performing the following substep:

(a.1) using a first algorithm to decrypt the first portion of the first encrypted data, decryption using the first algorithm being performed within the integrated circuit; and,

(b) when accessing a first portion of the second encrypted data stored in the second external memory, performing the following substep:

(b.1) using a second algorithm to decrypt the first portion of the second encrypted data, decryption using the second algorithm being performed within the integrated circuit, wherein the second algorithm is different than the first algorithm.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Abadi et al. (Abadi)	5,268,962	Dec. 7, 1993
Sourgen et al. (Sourgen)	5,850,452	Dec. 15, 1998

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Claims 1-6 and 9-14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sourgen. The examiner uses Abadi as evidence to support taking Official notice.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 15, mailed May 17, 2002) for the examiner's reasoning in support of the rejections, and to appellants' brief (Paper No. 14, filed Mar. 12, 2002) for the appellants' arguments thereagainst.

### **OPINION**

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we make the determinations which follow.

#### **35 U.S.C. § 103**

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. **See In re Rijckaert**, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A *prima facie* case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to

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make the proposed combination or other modification. **See In re Lintner**, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is *prima facie* obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. **See In re Fine**, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. **See In re Warner**, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), **cert. denied**, 389 U.S. 1057 (1968). Our reviewing court has repeatedly cautioned against employing hindsight by using the appellant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. **See, e.g., Grain Processing Corp. v. American Maize-Prods. Co.**, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

When determining obviousness, "the [E]xaminer can satisfy the burden of showing obviousness of the combination `only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would

lead that individual to combine the relevant teachings of the references.'" **In re Lee**, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002), citing **In re Fritch**, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'" **In re Dembiczak**, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). "Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact." **Dembiczak**, 175 F.3d at 999-1000, 50 USPQ2d at 1617, citing **McElmurry v. Arkansas Power & Light Co.**, 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

Further, as pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." **In re Hiniker Co.**, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). Therefore, we look to the language of independent claim 1. We find that independent claim 1 recites the use of a first and a second algorithm on an integrated circuit to decrypt first and second encrypted data. The examiner admits that Sourgen teaches only a first algorithm. (See answer at page 4.) Appellants argue that Sourgen fails to teach or suggest all of the limitations of the claim and the examiner fails to cite any evidence or motivation in the prior art to modify the reference. (See brief at page 4 and 5.) We agree with appellants and find that the examiner has not established a convincing line of reasoning for

modifying the system of Sourgen to use a second/different algorithm to decrypt the second data.

From our review of the teachings of Sourgen, Sourgen is concerned with having different data treated differently, and we find no evidence or motivation to use two different algorithms on the integrated circuit in the teachings of Sourgen alone. The examiner concludes that the second permutation circuit would provide enhanced security and “nothing in Sourgen’s disclosure precludes such a modification, and in fact the disclosure almost suggests such an improvement. Sourgen does not teach why his device does not include a second permutation circuit inside control unit UC, but one can easily surmise the reason is in the associated cost of the control unit UC.” (See answer at page 9.) From the examiner’s discussion and analysis it is clear that the examiner has based his rejection upon impermissible hindsight in an attempt to reconstruct the claimed invention. Clearly, this is improper and the examiner has based the rejection upon speculation and reliance on the negative inference that Sourgen does not teach that you can’t have a second algorithm as a motivation to have a second algorithm. In order for us to sustain the Examiner's rejection under 35 U.S.C. § 103, we would need to resort to speculation or unfounded assumptions or rationales to supply deficiencies in the factual basis of the rejection before us. **In re Warner**, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968), rehearing denied, 390 U.S. 1000 (1968).

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"Deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.'" **In re Zurko**, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697(Fed. Cir. 2001). Furthermore, "the Board's findings must extend to all material facts and must be documented on the record, lest the 'haze of so-called expertise' acquire insulation from accountability." **In re Lee**, 277 F.3d 1338, 1345, 61 USPQ2d 1430, 1435 (Fed. Cir. 2002). Here, we find the Examiner's arguments to be supported merely by the Examiner's own expertise instead of the evidence of record and the teachings of prior art which are required in order to establish a **prima facie** case of obviousness. Accordingly, we do not sustain the 35 U.S.C. § 103 rejection of any of claims 1-6 and 9-14 over Sourgen.

### **CONCLUSION**

To summarize, the decision of the examiner to reject claims 1-6 and 9-14 under 35 U.S.C. § 103 is reversed.

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**REVERSED**

ERROL A. KRASS  
Administrative Patent Judge

JOSEPH L. DIXON  
Administrative Patent Judge

ANITA PELLMAN GROSS  
Administrative Patent Judge

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