

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK H. ETZEL, DAVID W. FAUCHER,
DANIEL N. HEER, DAVID P. MAHER and
ROBERT J. RANCE

Appeal No. 2000-1308
Application 08/550,909

ON BRIEF

Before THOMAS, KRASS and JERRY SMITH, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 18-29, which constitute all the claims remaining in the application. An amendment after final rejection was filed on January 3, 2000 but was denied entry by the examiner.

The disclosed invention pertains to the field of transmitting protected material over communication channels.

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More particularly, the invention is directed to encryption and decryption techniques which help eliminate the pirating of the protected material by unauthorized users.

Representative claim 18 is reproduced as follows:

18. For an encryption system which includes sub-systems which (1) communicate with each other using communication channels, and (2) cooperate to deliver to subscribers encrypted material and encrypted keys, a method comprising the following steps:

a) when the encrypted keys are stored in a sub-system, storing them in encrypted form; and

b) prior to transferring a stored encryption key from one sub-system to another,

i) de-crypting the stored key into plain text,

ii) encrypting the plain text into cypher text, and

iii) transferring the cypher text to the other system.

The examiner relies on the following references:

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|-------------------------------------|-----------|---------------|
| Rivest et al. (Rivest) | 4,405,829 | Sep. 20, 1983 |
| Mason | 4,736,422 | Apr. 05, 1988 |
| Inoue | 5,195,134 | Mar. 16, 1993 |
| Pires | 5,204,900 | Apr. 20, 1993 |
| Rager et al. (Rager) | 5,363,447 | Nov. 08, 1994 |
| Finkelstein et al. (Finkelstein) | 5,410,602 | Apr. 25, 1995 |

The following rejections are on appeal before us:

1. Claims 18-22 and 25-29 stand rejected under 35 U.S.C. § 112, first paragraph, as being based on an insufficient disclosure.

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2. Claims 18-22 and 25-29 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.

3. Claims 18, 19, 21 and 22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the disclosure of Rager.

4. Claims 20 and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Rivest.

5. Claim 24 stands rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Rager.

6. Claim 25 stands rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Finkelstein in view of Rager.

7. Claims 26-28 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Finkelstein in view of Rager and further in view of Rivest.

8. Claim 29 stands rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Finkelstein in view of Rager and Rivest, and further in view of Pires, Inoue or Mason.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the prior art rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that none of the rejections made by the examiner is supported by the evidentiary record before us. Accordingly, we reverse.

We consider first the rejection of claims 18-22 and 25-29 under 35 U.S.C. § 112, first paragraph, as being based on an insufficient disclosure. The rejection raises questions with respect to both lack of enablement and lack of written description [Paper No. 13, pages 2-3]. The rejection only makes general observations that the specification does not enable one of ordinary skill in the art to make and use the invention and does not reasonably convey to one skilled in the relevant art that the inventors were in possession of the invention. The rejection provides little analysis as to why a person skilled in

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the art would be unable to make and use the invention based on the disclosure. Appellants specifically address each of these general observations by the examiner [brief, pages 30-38].

We have carefully reviewed the rejected claims, the supporting disclosure, and the arguments of appellants and the examiner. In light of this review, we agree with appellants that the disclosure satisfies all requirements of the first paragraph of 35 U.S.C. § 112. More importantly, we find that the examiner has failed to provide convincing reasons in support of the rejection. The examiner has the initial burden of providing evidence which establishes a prima facie case of unpatentability. We do not find the general assertions of lack of enablement and written description support made by the examiner in the rejection to satisfy the burden of presenting a prima facie case of unpatentability. We also find appellants' responses to the rejection to be persuasive in any case. Therefore, we do not sustain this rejection of the examiner.

We now consider the rejection of claims 18-22 and 22-25 under 35 U.S.C. § 112, second paragraph, as being indefinite. These rejections are set forth on pages 8-9 of the answer. Appellants have carefully responded to each of the claim rejections made by the examiner [brief, pages 39-40; reply brief,

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pages 5-9]. We essentially agree with all the arguments made by appellants in the briefs. Although the amendment filed concurrently with the appeal brief was not entered, the error in claim 19 in referring to paragraph (c)(ii) would clearly have been understood by the artisan as being a typographical error. The artisan would have understood that paragraph (b)(ii) was intended. We agree with appellants that the scope of all the rejected claims would be clear to the artisan. Therefore, we do not sustain this rejection of the claims.

We now consider the rejections of the claims under 35 U.S.C. § 102 as anticipated by Rager or Rivest. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

With respect to the rejection of claims 18, 19, 21 and 22 as anticipated by Rager, the examiner notes that many of the

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steps of these claims are recited in optional form and, therefore, the claims include the steps not taking place. The examiner also points to Figure 3 of Rager as anticipating the claimed invention [answer, pages 3-4]. Appellants argue that the recitations in these claims are not "optional" [reply brief], and they argue that Rager does not disclose the re-encryption of the key as recited in claim 18 [brief, pages 14-16]. The examiner responds that claim 18 recites encrypting plain text into cypher text and not the re-encryption of the key [answer, page 10]. Appellants respond that the "plain text" of claim 18 refers to the plain text resulting from the decryption of the stored key in step b)i). Therefore, appellants argue that encrypting this plain text constitutes the re-encryption of the stored key [reply brief, pages 9-10].

We agree with the position argued by appellants for the reasons given in the briefs. Rager does not disclose the steps of decrypting an encrypted key followed by a re-encryption of that key as recited in claim 18. The examiner does not appear to have recognized the difference between decrypting and re-encrypting a stored encrypted key and the mere encryption and decryption of the transmitted data.

With respect to claim 21, appellants argue that Rager

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does not anticipate this claim because the encrypted keys of Rager are transmitted to another sub-system which is contrary to claim 21 [brief, page 16]. The examiner responds that the step in question is optional [answer, page 10]. Appellants argue that the examiner's reliance on "optional" claim language is improper.

We again agree with the position of appellants. Rager does not anticipate the invention of claim 21 for the reasons given by appellants in the briefs. We do not agree with the examiner's position that the steps of the rejected claims are optional in the sense that they do not have to occur. The claimed invention relates to the steps being performed when the condition does occur. The prior art must at least relate to systems using an encrypted key as recited in each of the rejected claims. The examiner has not identified how the prior art meets every limitation of the rejected claims even assuming that some limitations are "optional." Therefore, we do not sustain the examiner's rejection of any of claims 18, 19, 21 and 22.

With respect to the rejection of claims 20 and 23 as anticipated by Rivest, the examiner indicates how he finds that Rivest fully meets the invention of these claims [answer, pages 4-5]. With respect to claim 20, appellants argue that Rivest

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does not disclose that the private key is used to encrypt other keys. Appellants also argue that Rivest does not meet the recitation of preventing other sub-systems from gaining access to the storage key and the recitation of a second encryption step which requires a key other than the storage key [brief, pages 16-18]. With respect to claim 23, appellants argue that Rivest does not disclose the three claimed keys nor the impossibility recited in the last clause of the claim [*id.*, pages 18-19].

We again agree with the position of appellants. Rivest does not anticipate the invention of claims 20 and 23 for the reasons given by appellants in the briefs. Although the examiner does not agree with the arguments made by appellants, we find appellants' arguments to be convincing that the disclosure of Rivest does not fully meet the recitations of claims 20 and 23. Therefore, we do not sustain the examiner's rejection of claims 20 and 23.

We now consider the rejections of the claims under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual

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determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472,

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223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered [see 37 CFR § 1.192(a)].

We consider first the rejection of claim 24 based on Rager taken alone. The rejection notes that step c) is optional. The rejection also states that although Rager does not teach storing keys in encrypted form in the ACS, it would have been obvious to the artisan to do so [answer, pages 5-6]. Appellants argue that the examiner's interpretation of Rager does not satisfy the limitations of claim 24. Appellants also argue that the examiner's simple finding of obviousness is not supported by the record [brief, pages 20-22].

We agree with appellants for the reasons set forth in the briefs and for the reasons related to our discussion of Rager above. Therefore, we do not sustain the examiner's rejection of claim 24 under 35 U.S.C. § 103.

We now consider the rejection of claim 25 based on Finkelstein and Rager. The rejection is set forth on pages 6-7 of the answer. Appellants argue that there is no motivation for

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combining the teachings of Finkelstein and Rager. Appellants argue that the rationale proposed by the examiner presumes problems in Finkelstein that do not exist and is contrary to the teachings of the references themselves. Appellants also argue that the specific recitations of claim 25 are not met by the applied prior art in any case [brief, pages 23-26].

We again agree with appellants for the reasons set forth in the briefs and for the reasons related to our discussion of Rager above. Therefore, we do not sustain the examiner's rejection of independent claim 25.

Claims 26-29 depend from claim 25 and are rejected on the combination of Finkelstein and Rager plus additional prior art. Since Finkelstein and Rager do not teach the invention of claim 25 as discussed above, and since the additional prior art does not overcome the deficiencies in this combination, we do not sustain the examiner's rejection of any of claims 26-29.

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In summary, we have not sustained any of the examiner's rejections of the claims on appeal. Therefore, the decision of the examiner rejecting claims 18-29 is reversed.

REVERSED

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| JAMES D. THOMAS |) | |
| Administrative Patent Judge |) | |
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| |) | BOARD OF PATENT |
| ERROL A. KRASS |) | |
| Administrative Patent Judge |) | APPEALS AND |
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