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Datasheet for the decision of 5 November 2018

Case Number: T 1465/13 - 3.5.02

Application Number: 02729392.7

Publication Number: 1350074

IPC: F41G3/26

Language of the proceedings: EN

Title of invention:
Combat Simulation wherein Target Objects are Associated to Protecting Object by means of a Local Co-operation Between the Target Objects and the Relevant Protecting Objects

Patent Proprietor:
SAAB AB

Opponent:
Rheinmetall Defence Electronics GmbH

Relevant legal provisions:
EPC 1973 Art. 100(a), 54, 56

Keyword:
Inventive step - (yes)

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Case Number: T 1465/13 - 3.5.02

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 5 November 2018

Appellant: (Patent Proprietor)	SAAB AB 581 88 Linköping (SE)
Representative:	Zacco Sweden AB Valhallavägen 117 Box 5581 114 85 Stockholm (SE)
Respondent: (Opponent)	Rheinmetall Defence Electronics GmbH Brüggeweg 54 28309 Bremen (DE)
Representative:	Greif, Thomas Thul Patentanwaltsgesellschaft mbH Rheinmetall Platz 1 40476 Düsseldorf (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 29 April 2013 revoking European patent No. 1350074 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman R. Lord
Members: F. Giesen
J. Hoppe

Summary of Facts and Submissions

I. This appeal by the patent proprietor (appellant) lies from the decision of the Opposition Division to revoke European patent No. 1 350 074.

II. The following document of the state of the art is relevant for this decision:

D1: EP 0 714 012 A1

III. The reasons given in the impugned decision were *inter alia* that the method according to claim 1 of the then main request (identical to claim 1 as granted) lacked novelty over document D1.

IV. Oral proceedings before the Board took place on 5 November 2018. During the oral proceedings, the appellant withdrew their main request.

The appellant's final request was thus that the decision under appeal be set aside and that the case be remitted to the Opposition Division with the order to maintain the patent in amended form on the basis of

- the claims of the first auxiliary request filed with letter dated 5 October 2018,

- amended pages 2 and 3 of the description filed during the oral proceedings,

- pages 4 to 7 of the description as published,

- figures 1 to 6a, b, c as published.

V. The respondent (opponent) requested that the appeal be dismissed.

VI. Claim 1 of the appellant's final request is identical to claim 1 as granted and reads as follows (the feature labelling is taken from the notice of opposition):

"*(1a) A method for simulating effects of direct fire and indirect fire against a target object (140)*
(1b) wherein simulated fire is represented by at least one of light rays (111) and radio waves (121) and
(1c) the effect of the simulated fire is registered by at least one of a light sensor (145a) and a radio receiver (145b) being co-located with the target object (140),
characterized by
(1d) automatic association of the target object (140) to at least one protecting object (130a, 130b, 130c, 130d)
(1e) when the target object (140) is located at a position relative to the protecting object such that the protecting object influences at least one of the effect of direct fire, the effect of indirect fire, reception of the light rays and reception of the radio waves,
(1f) wherein the association is maintained via a local co-operation between means (131, 132; 146) adapted for this purpose in the target object (140) and the at least one protecting object (130a, 130b, 130c, 130d) respectively,
(1g) and modification of the effects of the simulated fire against the target object (140) with respect to the protecting object's (130a, 130b, 130c, 130d) capability to protect against corresponding actual fire."

Claim 14 of this request is directed to a target object device comprising device features corresponding to method features (1a) to (1f), claim 20 to a combat simulation system comprising the target object device "according to any of claims 16 to 21 [sic!]". Their wording corresponds to granted claims 16 and 22.

Claims 2 to 13, 15 to 19 and 21 to 26 are dependent on claims 1, 14 and 20 respectively.

VII. The arguments of the appellant, in so far as they are relevant for this decision, can be summarised as follows:

Claim 1 was functionally limited. The effects of direct fire had to be taken into account. D1 did not disclose direct fire, but instead exclusively concerned indirect fire. The system according to D1 was not even suitable for processing direct fire because it was based on area effects and because of the group master unit architecture. The disclosed association according to D1 was static and therefore did not anticipate the features (1d) and (1e). The dynamic association claimed allowed a more realistic simulation in combat exercises, e.g. when a soldier moved between different protecting objects.

VIII. The arguments of the respondent, in so far as they are relevant for this decision, can be summarised as follows:

The method according to claim 1 as granted lacked novelty in view of D1. While in method claims formulations like "method for" could in principle define a functionally limited feature, this was not necessarily always the case. In the presently claimed

method, the only limitation was for it to be suitable for simulating the effects of direct fire, since there were no features in the claims that were specifically directed to direct fire. A skilled person would simply have to set the protective effect of an object to zero for simulating direct fire with the system of D1.

D1 further disclosed association in the sense of features (1d) and (1e), because the individual players were grouped and associated with a group master unit via the secondary radio link described in column 2, line 14 ff. The individual player units could communicate with the group master unit whenever they were in its limited radio range, and therefore the association was automatic. The ID programmed into the individual player units, see column 5, lines 1 to 6, had the purpose of filtering messages which were not destined for the individual player units but was not part of the association. Modifying the effects of simulated fire was also disclosed in column 3, line 54 ff.

The claims directed to a target object device and to a combat simulating system lacked novelty or were obvious over D1 for reasons analogous to those for claim 1.

Reasons for the Decision

1. The appeal is admissible.

2. Novelty - Articles 100(a) and 54 EPC 1973

2.1 Direct fire

Document D1 does not disclose simulating the effect of direct fire. There is not a single mention of direct fire in D1. The Board is not convinced by the statement in the impugned decision according to which it followed from the disclosure of indirect fire that D1 could also process direct fire, because the wording of granted claim 1 requires that the method does process direct fire, not merely that it could do so. The Board is also not convinced by the assertion that setting the protective value of a given protecting object in D1 to zero would result in the simulation of direct fire. The distinction between direct and indirect fire is independent of any protecting object's capability to protect against it. Setting the protective value to zero will therefore not affect how the system of D1 generates and interprets signals representing indirect fire, which would continue to be based on area effects. There is no disclosure in D1 that the system was adapted to generate signals representing direct fire and that the software was actually adapted to correctly interpret the signals as direct fire.

2.2 Association

Claim 1 as granted specifies "automatic association [...] **when the target object (140) is located at a position relative to the protecting object such that**

the protecting object influences at least the effect of direct fire, the effect of indirect fire, reception of the light rays and reception of radio waves" (emphasis added by Board).

Document D1 discloses in column 5, lines 1 to 3 that the individual player units (1-7, 11-17) search "the received message for a Group Master Unit identification number which matches the number stored for this purpose in its RAM 62." In column 2, lines 46 to 52 it is disclosed that the individual player units are programmed to respond to messages including the identification of a respective group master unit. Only if the transmission includes the appropriate group master unit identification, do the individual player units perform a casualty assessment, see D1, column 2, lines 55 to 59.

The term "association" as used in features (1d) and (1f) cannot be interpreted as merely referring to the establishment of a radio link, as was submitted by the respondent. One would not say, for example, that an individual player was associated to a radio mast representing a shell, just because it can receive the mast's radio signals. Rather, the fact that an individual player unit responds only to a particular group master unit by having its ID pre-programmed into its memory is what establishes the association. In D1, there is therefore merely a disclosure of an association programmed independently of the relative locations of master group and individual player units.

2.3 In summary, the Board finds that the method according to claim 1 is new over that disclosed in D1. No other prior art was cited as novelty destroying. Therefore,

the subject-matter of claim 1 meets the requirements of Article 54 EPC 1973.

2.4 The target object device according to claim 14 contains the feature of automatic association when the target object is located at a particular position relative to a protecting object. At least for this reason, its subject-matter also meets the requirements of Article 54 EPC 1973.

2.5 The combat simulating system according to claim 20 also contains this feature and therefore its subject-matter also meets the requirements of Article 54 EPC 1973.

3. Inventive step - Articles 100(a) and 56 EPC 1973

3.1 The method of document D1 is the closest prior art for the method according to claim 1.

3.2 As explained in the preceding section, the method of claim 1 is distinguished from the closest prior art by the features of direct fire, i.e. part of feature (1a), association, i.e. features (1d) and (1e), and maintenance of the association, i.e. feature (1f).

3.3 It can be left aside whether, and if so how, taking direct fire into account contributes to inventive step, because the Board comes to the conclusion that even if the features (1d) to (1f) were the only distinguishing features, the method would nonetheless involve an inventive step. For the same reason, the prior art document cited by the respondent only with respect to the direct fire feature (identified as D3) is not relevant for this decision.

3.4 The automatic association and maintenance of the association allows factoring in the protective effect of various protecting objects in the simulation of the effects of fire on a target object while it is protected by it. The objective technical problem addressed by the claimed invention is thus to enable a more realistic simulation of the effect of various objects on direct and indirect fire in a combat simulation.

3.5 D1 discloses that the protective effect of a vehicle can be taken into account (via its player type) for simulating the effects of indirect fire when soldiers are riding it. This is, however, rather a side-effect of the main purpose of D1, which is to provide a combat simulation system in which not every participant has to carry GPS equipment. More importantly, the effect is arrived at in a different way, namely without automatic association when the target object is in the protective space of the protecting object, here inside the vehicle. The association between the target object and the protecting object in D1 is thus a static one, based solely on the organisation of the units concerned. By contrast, the claimed automatic association provides a more realistic simulation, because it enables the protective effect to be evaluated dynamically as the target object and protective object move relative to one another. It is an obvious desire to make combat simulations more realistic, but there is no motivation when starting from D1 to provide for automatic association when a target object is under the protective influence of a protecting object.
The other documents cited in the appeal procedure neither deal with this technical problem nor suggest the claimed solution.

Thus the method according to claim 1 cannot be considered obvious.

3.6 Since the target object device according to claim 14 and the combat simulating device according to claim 20 also contain the above distinguishing features, they cannot be considered obvious for the same reasons as claim 1. The same conclusion applies to the dependent claims.

3.7 The subject-matter of the claims of the amended patent thus meets the requirements of Article 56 EPC 1973. Furthermore the description has been adapted to the amended claims.

4. Since, taking into consideration the amendments made by the proprietor of the patent, the contested patent and the invention to which it relates meet the requirements of the European Patent Convention, the Board accedes to the request of the appellant.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the Opposition Division with the order to maintain the patent in amended form on the basis of

   - the claims of the first auxiliary request filed with letter dated 5 October 2018,

   - amended pages 2 and 3 of the description filed during the oral proceedings,

   - pages 4 to 7 of the description as published,

   - figures 1 to 6a, b, c as published.

The Registrar: The Chairman:

U. Bultmann R. Lord

Decision electronically authenticated