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Case Number: T 1742/06 - 3.5.02

Application Number: 99903342.6

Publication Number: 1057153

IPC: G08G 1/00

Language of the proceedings: EN

Title of invention:
Container and inventory monitoring methods and systems

Applicant:
K & T of Lorain, Ltd.

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 52, 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step - no"

Decisions cited:
-

Catchword:
-

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Case Number: T 1742/06 - 3.5.02

D E C I S I O N
of the Technical Board of Appeal 3.5.02
of 8 October 2009

Appellant: K & T of Lorain, Ltd.
Suite A,
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Representative: Potter, Julian Mark
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 16 June 2006 refusing European patent application No. 99903342.6 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: M. Ruggiu
Members: M. Rognoni
E. Lachacinski

Summary of Facts and Submissions

I. The appellant (applicant) appealed against the decision of the examining division refusing European patent application No. 99 903 342.6.

II. In the contested decision, the examining division found, *inter alia,* that the subject-matter of claim 1 and the method according to claim 21 then on file merely defined the straightforward implementation of a mental scheme for item monitoring on a general purpose computer system and thus did not involve an inventive step within the meaning of Article 56 EPC.

Furthermore, the examining division observed that the technical features for monitoring movable items described in the present application were state of the art and, in particular, known from the following document:

D1: WO-A-97/08628.

III. With the statement of grounds of appeal dated 24 October 2006, the appellant filed a new set of claims 1 to 46.

IV. In a communication dated 14 May 2009 accompanying the summons to attend oral proceedings, the Board observed, *inter alia,* that the subject-matter of the newly filed claim 1 did not appear to involve an inventive step over D1 and that, in fact, the present application did not seem to contain any patentable subject-matter.

V. The appellant did not react to the Board's communication. Nor did he attend the oral proceedings which were held, as scheduled, on 8 October 2009.

VI. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 46 filed with the letter dated 24 October 2006.

VII. Claim 1 of the appellant's request reads as follows:

"A computer implemented system for monitoring and recording location, switching and load status of shipping containers relative to a facility with an associated yard defined by a boundary within which containers are to be monitored by the system, and a controlled entry point to the boundary, and for monitoring docks and containers with respect to docks associated with the facility, the system comprising:

a plurality of container data input terminals for recording identification codes of containers which enter the yard;

a plurality of remote container data transceivers associated with containers within the boundary for communicating container information to be recorded on movements and changes in location and load status of the containers made according to instructions received at the remote container data transceivers from the facility; and

a computer system comprising a container monitor control system database, wherein the computer system is operable to:

transmit instructions to the remote container data transceivers regarding switching and changes in location and load status of the containers;

receive the container information from the remote container data transceivers and record the container information in the container monitor control system database;

generate reports of recorded container information on locations and loads status of containers within the boundary;

generate reports on container locations and load status relative to designated docks associated with a facility;

generate reports on container switches within the boundary;

monitor usage of one or more docks associated with the facility by the presence or absence of a container at a dock, by recording in the container monitor control system database container information associated with the presence or absence of an identified container at a particular identified dock; and

produce a report which identifies monitored docks and identifies containers present at identified docks and identifies docks at which a container is absent."

Claims 2 to 23 are dependent on claim 1.

Claim 24 reads as follows:

"A computer implemented system of monitoring and recording location, switching, and load status of shipping containers relative to a facility with an associated yard defined by a boundary within which containers are to be monitored by the system, a controlled entry point to the boundary, and for monitoring docks and containers with respect to docks associated with the facility, the method including the steps of:

using container data input terminals to record identification codes of containers which enter a yard;

using a plurality of remote container data transceivers associated with containers within the boundary to communicate information to be recorded on movement and changes in location and load status of the containers made according to instructions received at the remote container data transceivers from the facility; and

using a computer system comprising a container monitor control system database for:

transmitting instructions to the remote container data transceivers regarding

switching and changes in location and load status of the containers;

receiving the container information from the remote container data transceivers and recording the container information in a container monitor control system database;

generating reports of recorded container information on locations and load status of containers within the boundary;

generating reports on container locations and load status relative to designated docks associated with a facility; and

generating reports on container switches within the boundary;

monitoring usage of one or more docks associated with the facility by the presence or absence of a container at a dock, by recording in the container monitor control system database container information associated with the presence or absence of an identified container at a particular identified dock;

producing a report which identifies monitored docks and identifies containers present at identified docks and identifies docks at which a container is absent."

Claims 25 to 46 are dependant on claim 24.

VIII. The appellant's arguments relevant to the present decision may be summarised as follows:

The claims of the present application related to an inventive logistics tool which yielded information on location and status of physical goods with respect to a facility, such as a yard and associated docks, at a level of detail required for efficient operation of a modern production facility.

The technical field of logistics was concerned with the acquisition, transport, handling and management of physical goods along the supply chain. It was a technology which had progressed from the primitive stage of, for example, a business knowing that it had in its possession or on its premises a quantity of needed parts or commodity, to knowing with absolute real-time certainty the location and status of all inventory and incoming goods.

The modern science of logistics required a high level of detail with respect to the location and status of physical goods at each moment in time along a supply chain. An example of this was the use of radio frequency powered tags on all goods throughout the supply chain which made such information available continuously.

The invention did not merely relate to administration, as suggested by the examining division. The monitoring processes performed in accordance with this invention related to tangible physical objects (shipping

containers and their contents) and not merely to, for example, money flows (accounting information). Embodiments of this invention allowed for the efficient organisation and movement of shipping containers. This was clearly a technical effect. In other words, the end result achieved by this invention was a technical one, namely the more efficient organisation of the shipping containers (for example, more efficient usage of space in the docks).

The system according to claim 1 involved numerous technical features, such as data input terminals, remote container data transceivers and a computer system operable to transmit and receive information and to produce reports as well as monitor usage of the docks. The same applied to the method according to claim 24. Accordingly, both independent claims related to an invention within the meaning of Article 52(1) EPC.

The cited prior art document, D1, made reference to certain logistical functions, such as container arrival, switching and docking, but it did not teach or suggest the logistics operations, steps and products of the claimed system and method.

In large scale shipping involving hundreds or thousands of containers, it had not been long since the practice of using a single checkpoint to record by pencil and paper the presence of a container in a yard. Prior art logistical systems addressed the need to acquire and maintain information on the presence or absence of goods with respect to a manufacturing facility, and with respect to certain physical attributes of the

manufacturing facility, such as receiving yards and facility docks.

D1 taught a system for monitoring and tracking containers within defined premises but did not recognise the further advantages of continuous monitoring of container movements and status within a yard and with respect to the docks of the associated facility.

Docks were the controlled points of entry to the manufacturing facility, and as such were critical to maintaining access to the facility and flow of parts and materials needed for continued manufacturing process operations. D1 did not recognise the claimed function of tracking container locations and load status with respect to designated docks in order to ascertain a statistical picture of actual dock usage.

Since there was no suggestion in D1 of furthering the systems and methods described therein and to allow for monitoring of the physical status of uniquely identified containers with respect to uniquely identified docks, the skilled person would not find it obvious to modify D1 to include these features, whose technical effect was the enhanced organization of shipping containers and their contents.

Accordingly, the claimed invention involved an inventive step in accordance with Article 56 EPC.

Reasons for the Decision

1. The appeal is admissible.

2.1 As specified in the description of the published application (WO-A-99/38136, page 1, lines 12 and 13), the "present invention pertains generally to logistics methods and systems for tracking and control of containers, shipping racks and inventory".

2.2 The claims of the appellant's request differ from the claims considered by the examining division in that they have been amended so as to clarify "*the nature of the information that is monitored and recorded according to this invention*", to specify *"the kinds of movements of containers",* and to specify that the computer system is *"operable to generate reports on container switches within the boundary"* (cf. statement of grounds of appeal, page 2, first three paragraphs).

3.1 Claim 1 is directed to a "*computer implemented system*" and can be divided into three parts: part A) specifies the objects of the claimed system, part B) concerns the system's hardware and part C) lists all the functions performed by the claimed system.

In particular, part A) specifies the following objects:

- monitoring and recording location, switching and load status of shipping containers relative to a facility with
  - an associated yard defined by a boundary within which containers are to be monitored by the system, and

– a controlled entry point to the boundary, and

– monitoring docks and containers with respects to docks associated with the facility.

Part B) defines the following hardware:

– a plurality of container data input terminals for recording identification codes of containers which enter the yard;

– a plurality of remote container data transceivers associated with containers within the boundary for communicating container information to be recorded on movements and changes in location and load status of the containers made according to instructions received at the remote container data transceivers from the facility; and

– a computer system comprising a container monitor control system database.

Part C) relates to the following functions performed by the computer system:

– transmit instructions to the remote container data transceivers regarding switching and changes in location and load status of the containers;

– receive the container information from the remote container data transceivers and record the

container information in the container monitor control system database;

– generate reports of recorded container information on locations and loads status of containers within the boundary;

– generate reports on container locations and load status relative to designated docks associated with a facility;

– generate reports on container switches within the boundary;

– monitor usage of one or more docks associated with the facility by the presence or absence of a container at a dock, by recording in the container monitor control system database container information associated with the presence or absence of an identified container at a particular identified dock; and

– produce a report which identifies monitored docks and identifies containers present at identified docks and identifies docks at which a container is absent.

3.2 Hence, the system according to claim 1 is based on a mix of technical features (cf. part B)) and of steps (part C) for monitoring and recording all movements of a container and its loading and unloading with respect to a facility comprising a yard, a controlled entry point and docks. In principle, the steps of part C) could be carried out by human operators wishing to

perform the tasks set out in part A), *i.e.* tracking the movements of the containers and their loading or unloading at the docks.

4.1 According to the appellant, the present application related to an inventive logistics tool which yielded information on the location and status of physical goods (*i.e.* containers) and the claimed invention aimed at achieving a technical result, namely the more efficient organisation of the shipping containers.

4.2 The Board does not contest that logistics and, in particular, the present invention may indeed involve some aspects belonging to a field of technology. However, the system according to claim 1 cannot be regarded as a patentable invention within the meaning of Article 52 (1) EPC, if it merely relies on conventional hardware for performing a set of functions which are *per se* known or obvious to the skilled person.

5.1 Figures 1 and 2 of D1, which are identical to Figures 1 and 2 of the present application, are schematic diagrams of the operational, hardware and peripheral components of a container management system comprising the combination of hardware and peripheral components (see part B of claim 1) of the present invention.

5.2 According to the appellant (statement of grounds of appeal, page 4, paragraph 18), D1 "does not recognize the claimed functions of tracking container locations and load status with respect to designated docks in order to ascertain a statistical picture of actual dock usage".

5.3 However, D1 (page 5, lines 28 to 33) specifies that the known "system monitors and records all container

movement within the plant premises ....., for example,..... from receiving areas Y to plant entrance docks D and back to receiving areas".

Furthermore, because *"the system continuously tracks the location and status of all containers on the premises at all times, calculations can be made to determine available capacity for receiving additional containers"* (D1, page 10, lines 13 to 16).

All data concerning the locations of a container, its loading and unloading operations are stored in a database (CMCS Database) which can generate a detailed report (see Figure 3) including the dock or docks at which the container is or was last unloaded (cf. D1, page 10, line 18 to page 11, line 8). Thus, the system according to D1 collects and stores all data required to monitor usage of the docks and to produce a report identifying docks, containers resident at identified docks and docks at which a container is absent, as specified in claim 1 of the appellant's request.

In other words, the only difference between the claimed subject-matter and the system known from D1 relates to the presentation of statistical data concerning dock usage obtained on the basis of data already stored in the database.

5.4 Apart from the fact that it is doubtful whether functions relating to the presentation of data in a useful form can be regarded as subject-matter of a patentable invention, it would be obvious to a person skilled in the art, starting from the disclosure in D1, to develop a system operable to generate, on the basis

of the data stored in the system's database, all the data reports which may be required to satisfy the commercial and administrative needs of the users and, in particular, to present statistical data relating to dock usage. In doing so, the skilled person would arrive at a system falling within the terms of claim 1.

5.5 Hence, the subject-matter of claim 1 of the appellant's request does not involve an inventive step within the meaning of Article 56 EPC.

6. The same considerations apply, *mutatis mutandis*, to claim 24 which relates to a "*computer implemented method*" corresponding to the system of claim 1.

7. As the appellant’s only request does not provide a basis for allowable claims, the application has to be refused.

Order

For the above reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

U. Bultmann M. Ruggiu