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**Datasheet for the decision
of 14 March 2014**

Case Number: T 1944/10 - 3.2.04

Application Number: 00956704.1

Publication Number: 1211971

IPC: A47G29/14, A47G29/12

Language of the proceedings: EN

Title of invention:

SECURE ARTICLE DELIVERY APPARATUS AND METHOD

Patent Proprietor:

DX BUSINESS DIRECT LIMITED

Opponents:

Deutsche Post AG
KEBA AG

Headword:

Relevant legal provisions:

EPC Art. 123(2)

Keyword:

Amendments - added subject-matter (yes)
Amendments - intermediate generalisation

Decisions cited:

T 1408/04, T 0461/05, T 1067/97, T 0714/00

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 1944/10 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 14 March 2014

Appellant: Deutsche Post AG
(Opponent 1) Charles-de-Gaulle-Strasse 20
53113 Bonn (DE)

Representative: Jostarndt, Hans-Dieter
Jostarndt Patentanwalts-AG
Brüsseler Ring 51
52074 Aachen (DE)

Appellant: KEBA AG
(Opponent 2) Gewerbepark Urfahr 14 bis 16
A-4041 Linz (AT)

Representative: Ofner, Clemens
Anwälte Burger & Partner
Rechtsanwalt GmbH
Rosenauerweg 16
4580 Windischgarsten (AT)

Respondent: DX BUSINESS DIRECT LIMITED
(Patent Proprietor) 1 Great Central Way
Butler's Leap
Rugby
CV21 3XH (GB)

Representative: Jenkins, Peter David
Page White & Farrer
Bedford House
John Street
London WC1N 2BF (GB)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
15 July 2010 concerning maintenance of the
European Patent No. 1211971 in amended form.**

Composition of the Board:

Chairman: A. de Vries
Members: J. Wright
C. Heath

Summary of Facts and Submissions

- I. The appellant-opponent I and appellant-opponent II lodged separate appeals, both received on 15 September 2010, against the interlocutory decision of the opposition division dated 15 July 2010 on the amended form in which the European patent No. EP-B-1211971 can be maintained, and simultaneously paid the appeal fees. The statement setting out the grounds were received from the appellant-opponent I on 25 November 2010 and from appellant-opponent II on 15 November 2010.

Opposition was based on Articles 100(a), (b) and (c) EPC.

The opposition division held that the patent as amended according to a first auxiliary request met all the requirements of the EPC, in particular that the amendments made to claim 1 did not add subject-matter.

- II. Both appellants request that the decision be set aside and that the patent be revoked in its entirety.

The respondent (proprietor) requests that the appeals be dismissed and the patent be maintained in the form held allowable by the opposition division, or in the alternative, that the patent be maintained in amended form according to one of five auxiliary requests. Auxiliary requests 1 and 2 were filed with the respondent's reply to the appeals on 24 June 2011 and auxiliary requests 3 to 5 were filed with a letter of 14 February 2014

- III. Oral proceedings before the Board were duly held on 14 March 2014.

IV. The wording of claim 1 of the relevant requests is as follows:

Main request (as held allowable by the division):

"Apparatus for the secure delivery of an article having a readable barcode, which apparatus comprises a box (9; 70; 80; 209; 309) having a door (30; 30a; 30b; 230; 330) and locking means for locking the door, an input device (362) capable of enabling a deliverer to enter a delivery code, a controller for controlling access to the box having a pre-programmed code stored therein and capable of verifying the delivery code with the pre-programmed code wherein there further comprises an article barcode reader (361) for reading the article barcode (253) to verify delivery of the article, the controller being arranged to control the locking means and to release the locking means if at least a part of the article barcode read by the article barcode reader (361) matches the pre-programmed code stored in the controller, and a transmitter (363) arranged to transmit the identity of the article, the identity of the deliverer, the time and/or date of delivery and the identity of the box to a desired location after the door is locked."

Claim 1 of the first auxiliary request reads as the main request but (*italics* added by the Board to indicate the relevant changes):

- replaces: the words "which apparatus comprises a box (9; 70; 80; 209; 309) having..." with "which apparatus comprises *an assembly comprising a plurality of boxes, each box* (9; 70; 80; 209; 309) having...";
- replaces the words "a controller for controlling access to the box having a pre-programmed code

stored therein" with "a controller for controlling access to a selected box of the plurality of boxes, the controller having a preprogrammed code stored therein *for the respective box,*"; and
- replaces the words "...matches the pre-programmed code stored in the controller," with "...matches the pre-programmed code stored in the controller *for the respective box,*"

Claim 1 of the second auxiliary request reads as the first auxiliary request but adds after the words "...an assembly comprising a plurality of boxes," the wording "each box having a unique identifier for use in validating the delivery of an article thereto,".

Claim 1 of the third, fourth and fifth auxiliary requests read as the main, first and second auxiliary requests respectively but add after the words "an input device (362) capable of enabling a deliver to enter a delivery code," the words "the input device being provided by a numeric or alphanumeric keypad,".

V. The appellants mainly argued as follows:

Although a sensor is presented in the description of the fifth embodiment as being preferable, a complete reading of the relevant parts of the description by the skilled person shows that a sensor is necessary for achieving secure delivery. In particular the first two paragraphs of page 16 cannot be read independently of each other, nor out of context with the original aim of the invention and the mechanical embodiments of the patent. Thus, "the package is secure in the box" (page 16, second paragraph, last sentence) can only mean that a package has first been detected by the sensor in the box (page 16 first paragraph) and the door locked.

Secure delivery as claimed is therefore only disclosed in conjunction with a sensor and omitting a sensor from claim 1 adds subject matter. Likewise delivery verification as claimed can only happen after detecting the package to be inside the box, which also requires the sensor.

The respondent argued:

Claim 1 as upheld and according to the auxiliary requests is based on the description of the fifth embodiment of the invention. According to the relevant parts of the description, a sensor is merely preferable, thus an optional feature which can be omitted from the claim without adding subject matter. The original application documents disclose article delivery of different degrees of security. The skilled person reads the first and second paragraphs of page 16 of the application as published independently of each other and so understands that a sensor is not necessary for the package to be "secure inside the box" (page 16, second paragraph, last sentence). In other words the latter expression includes that the package is not physically in the box but has merely been presented outside the box and the box shut without the package inside. Therefore in the fifth embodiment, a package can be securely delivered, without being physically in the box. It follows that "secure delivery" as claimed does not require a sensor to sense a package in the box, thus its omission from claim 1 has a basis in the application as filed. Likewise verification of delivery only requires reading a barcode on the package to confirm its presence outside the box, for which a sensor inside the box is unnecessary, so need not be claimed.

Reasons for the Decision

1. The appeals are admissible.
2. Background of the invention
 - 2.1 The present patent is concerned in the first place with "secure article delivery", see title, and first line of claim 1. In particular, as already stated in the original application as published, see page 1, 2nd and 3rd paragraphs, it addresses problems in secure delivery of items requiring recipients to be at home to sign for them.

The application as published, see claim 1, and the general statements on page 1, lines 23 to 27, and page 8, lines 1 to 5, describe the proposed solution in general terms: namely a box with a door that is openable by a deliverer when empty but which, once closed with an article inside, can only be opened by the recipient of the article.

- 2.2 The original description presents a number of distinct embodiments of this idea, some of which are mechanical and others electronic. For example, in the purely mechanical embodiment of figures 1 to 10, the bottom of the box is provided with a sprung platform. As long as no article is in the box a deliverer can open the door. When an article is in the box it weighs the platform down, the deliverer then shuts the door. Thus lowered with the door shut, the platform activates a latch which prevents the deliverer from reopening the box. See for example page 8, line 6 to page 9, line 5 and figure 1. Secure delivery is thus achieved by denying

the deliverer access to the box after he has placed the item inside and shut the box.

The electronic embodiments are described in the application as published, page 15, line 6 to page 19, line 13 in conjunction with figures 11a, 11b and 12. These embodiments, referred to as the "fifth embodiment" offer an electronically controlled version of the box, page 15, lines 6-9. Here secure delivery is achieved by a controller 365 locking the door after an article has been placed in the box and the door closed (application as published, page 16, lines 1 to 6). Delivery verification takes place in a remote server based on delivery information sent once the article is secure in the closed box (application as published, page 16, lines 8 to 18).

3. Added subject matter, Article 123(2) EPC
- 3.1 As acknowledged by the respondent, claim 1 as granted and the amended version upheld by the decision under appeal claim are directed at the embodiment shown in figures 11 and 12 and described in detail as the fifth embodiment on pages 15 to 19 of the published application. Thus, claim 1 as upheld is directed at an apparatus for the secure delivery of an article having a readable code, and includes (amongst others) the features of a box with a locking means, an article barcode reader, a controller for controlling access to the box and a transmitter. According to the claim the controller controls access to the box by releasing the locking means when part of the article barcode read by the reader matches a stored pre-programmed code, the transmitter transmitted relevant delivery data after the door is locked. The description of the article

barcode reader, the controller and the transmitter, and their operation using the pre-programmed codes is found specifically in the published application on page 15 , last paragraph, and the 2nd paragraph on page 16.

In addition to these features that are present in claim 1 as upheld, the description of the fifth embodiment on pages 15 to 17 also mentions other features that have not been included. In particular it mentions a sensor detecting the presence of an article in the box, see page 16, first paragraph ("the presence of the article is detected by sensor 367 ... to signal ... that an article has been placed in the box 399"), and shown at 367 in figures 11 and 12. This feature disclosed in combination with those mentioned above on pages 15 to 18 has thus been omitted from the combination of features appearing in claim 1 as upheld. Claim 1 as upheld thus lifts some but not all features from the specific combination of features originally disclosed in relation to the fifth embodiment.

3.2 According to established jurisprudence, it is normally not allowable to base an amended claim on the extraction of isolated features from a set of features originally disclosed only in combination, e.g. a specific embodiment in the description, see Case Law of the Boards of Appeal, 7th edition, 2013, II.E.1.2 and the decisions cited therein. Such an amendment results in an intermediate generalisation, in that it further limits the claimed subject-matter, but is nevertheless directed at an undisclosed combination of features broader than that of its originally disclosed context, see for example T1408/04 and T461/05. It is justified only in the absence of any clearly recognisable functional or structural relationship among the features of the specific combination, see T1067/97, and

if the extracted feature is thus not inextricably linked with those features, see T714/00.

3.3 The Board must therefore consider whether such a justification exists in the present case. In other words it must examine whether the skilled person would derive directly and unambiguously from the original application documents that those features described in combination on pages 15 to 18 and incorporated into claim 1 of all requests, in particular controller, barcode reader and transmitter, have no clearly recognisable functional or structural relationship with the features of the fifth embodiment not incorporated, in particular that of the article sensor.

3.4 It is true that this part of the description relating to a fifth embodiment, said to be an "electronically controlled version of the [mechanical] box 309, see application as published page 15, lines 6 to 9, in following lines 18 to 24, that certain features, such as "one or more article sensors" may be "preferably" provided. This paragraph opens the description of the fifth embodiment by briefly describing its main features, some of which (article sensors, transmitter/receiver controller, barcode reader and keypad) are presented as preferable or dispensable. The following paragraphs on pages 15 to 18 then give a detailed description of how this particular embodiment is specifically realized, in terms of the interaction between its various features when an article is delivered. It is only then that the skilled person is given a complete teaching as to how the various features cooperate to achieve the stated purpose of the invention, that is secure article delivery. Far from being independent of each other, these paragraphs

together describe a complete sequence of steps for securely delivering an article.

- 3.5 In more detail, a deliverer first unlocks the box by inputting a code or scanning an article barcode with the barcode reader, places the article inside and closes the door (page 15, last paragraph). Next, a sensor 367 detects that an article is in the box and signals this to the controller 365, which signals the lock to lock the door (page 16 first paragraph, which suggests various alternative sensing arrangements). Lastly, when the door is shut and "the package is secure inside the box", information pertaining to the delivery is sent via the transmitter to a central database for delivery verification (page 16, middle paragraph).

From the above sequence, the skilled person understands that the door can only be locked if an article is inside - the sensor must detect an article in the box and appraise the controller thereof which then locks the door. Therefore the skilled person understands the term "secure inside the box" to mean that the door is locked with an article inside. This understanding is consistent with the stated purpose of the invention and with all the other embodiments of the invention, as in the mechanical embodiment mentioned above (see above, section 2.2) in which the article's weight causes the lock to latch against further opening by the deliverer.

- 3.6 No other interpretation of what is meant by "secure" delivery can be derived from the original application as filed. Notably, the original application does not clearly and unambiguously disclose that "secure" might imply some lesser degree of security, in particular one in which it is ascertained only that the box has been

opened with a barcode, but may then have been locked without the article being inside. Although the application does appear to suggest different degrees of secure delivery and ways of achieving this (see application as published page 20, lines 4 to 11), the skilled person will nevertheless understand that the minimum delivery security level consistently disclosed throughout the application as filed is for an article to be confirmed as being inside the box with the box locked.

Thus the skilled person understands "secure delivery of an article" in the context of the fifth embodiment, consistent with the stated aim of the invention (application as published, page 8, lines 1 to 5) and with the remaining embodiments, to mean that an item must be in the box and the box locked.

3.7 The only way to achieve such secure delivery disclosed in the description of the fifth embodiment requires the sensor signaling to the controller that the article is present in the box (application as published, page 16, first paragraph), thus these two features are functionally directly related. Furthermore, according to the fifth embodiment, verification of delivery (also claimed) is achieved by sending information, including that read by the barcode reader, to the controller, which sends it via the transmitter once the package is secure inside the box (page 16, middle paragraph). Consequently, this verification also requires input from the sensor to confirm the presence of the article in the box and cause the processor to lock the door. Thus the sensor is likewise functionally related to the barcode reader and transmitter. Furthermore, as can be seen from the system architecture shown in figure 12, the sensor 367 communicates directly with the

controller 365, which in turn communicates with the barcode reader 361 and transmitter 363. The sensor is therefore structurally linked with the controller, barcode reader 361 and transmitter 363.

- 3.8 From the above it follows that the cited paragraphs provide a direct and unambiguous disclosure in the original application of a specific combination of features of a box with a door and a lock, an article sensor, an article barcode reader, a controller and a transmitter, which all cooperate using a pre-programmed code in the manner described to ensure verifiable secure delivery of the article inside the box. In that specific combination and within the context of achieving such a secure delivery of an article and verifying delivery, the claimed processor, barcode reader and transmitter are originally disclosed cemented in a tight functional and structural relationship, in other words inextricably linked, with the article sensor, which has not been claimed.

Where the published application on page 15, lines 18 to 24, refers to features such as the sensor being "preferably" provided, this is taken to refer to variants of the fifth embodiment for which no complete disclosure exists, in particular as regards how the various remaining features interact to provide for "secure delivery" in the only sense directly and unambiguously derivable from the application as filed. The only detail is provided in relation to the particular combination of specifically interacting features discussed above, in which the article sensor is a central, indispensable element.

- 3.9 The Board concludes that, by omitting the article sensor from this combination of features that forms the

basis for claim 1 of all requests, those features that have been included, in particular processor, barcode reader and transmitter cooperating in the specified manner result in a combination of features for which there is no direct and unambiguous disclosure in the original application documents. Stated otherwise, this new, more general combination of features constitutes a teaching - namely that secure delivery can be achieved using a pre-programmed code and the article barcode read by the reader without a sensor sensing the article placed in the box - which the skilled person cannot derive directly and unambiguously from the application as filed. This results in a new subject matter which extends beyond the original application as filed, contrary to Article 123(2) EPC. This finding applies equally to the main and auxiliary requests 1 to 5, none of which include the feature of an article sensor.

4. Conclusion

As claim 1 in the form held allowable in the decision under appeal (main request) and claim 1 according to auxiliary requests 1 to 5 add subject matter extending beyond the application as filed, Article 123(2) EPC, the patent as amended fails to meet the requirements of the EPC. Pursuant to Article 101 (3) (b) EPC the Board must therefore revoke the patent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated