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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted
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- of inventorship (Rule 4.17(iv))

[Continued on next page]

(54) Title: METHOD FOR TRANSPORT AND DELIVERY OF POSTAL ITEMS

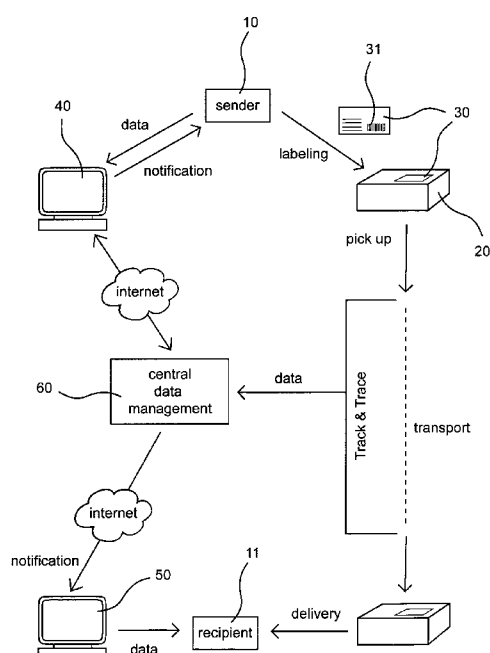


Fig. 1

(57) Abstract: Method for transport and delivery of postal items (20) between a sender (10) and a recipient (11), which comprises at least the following steps: providing a postal item (20) with at least a unique identification number and address information of the recipient (11); importing the unique identification number and delivery information into a computer means (40) at the sender's site; - transferring the unique identification number and the delivery data from the computer means (40) to a central data management system (60) via the internet; creating a transport identification number for the postal item (20) by the central data management system (60) and allocating the transport identification number to the unique identification number of said postal item (20); sending a notification of forthcoming delivery from the central data management system (60) to a computing means of the recipient (11); transporting the postal item (20) from the sender (10) to the recipient (11), whereby the unique identification number of the postal item (20) is read at more than one location during transport of the postal item (20) and information about the location of the identified postal item (20) is sent to the central data management system (60), which sends the information about the current location of the postal item (20) to the computing means (40; 50) of the recipient (11) and/or of the sender (10).



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Method for transport and delivery of postal items

Description:

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The invention relates to a method for transport and delivery of postal items between a sender and a recipient via a courier. A courier person picks up the postal item at the sender's site and notifications about the current status of the postal item during its transport are sent to the sender and/or the recipient by means of a track & trace system.

10

The current process for transport and delivery of a postal item from a sender to a recipient by a courier usually asks for the sender to request an air waybill number (AWB) from the courier and to apply the air waybill number to the postal item. This is usually done by writing the AWB number on the postal item or on a label. The air waybill number is issued as a receipt by an international courier company for goods and an evidence of the contract of carriage. The AWB has a tracking number which can be used to check the status of delivery, and current position of the shipment.

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When the courier picks up the postal item at the sender's site, the courier reads the air waybill number from the postal item and enters the number into a mobile handheld device, for example, or the AWB number is scanned by the handheld device. Afterwards, the AWB can be allocated to the postal item by means of a unique identification number which is coded in a barcode that is printed on the label, for example. However, when the AWB is scanned, data errors can occur due to illegible writing, and the reading procedure slows down the speed and efficiency of pick up by the courier.

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Therefore, the objective of the invention is to provide a method for transport and delivery of a postal item which allows for a fast pick up of postal items at the sender's site and avoids AWB errors.

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According to the invention, this objective is achieved by a method having the features of the independent Claim 1. Advantageous refinements of the method are set forth in the subordinate Claims 2 through 7.

5 The invention comprises a method for transport and delivery of postal items between a sender and a recipient, which comprises at least the following steps:

- providing a postal item with at least a unique identification number and address information about the recipient;
- 10 - importing the unique identification number and delivery information into a computer means at the sender's site;
- transferring the unique identification number and the delivery data from the computer means to a central data management system via the internet;
- creating a transport identification number for the postal item by the central data management system and allocating the transport identification number to the
15 unique identification number of said postal item;
- sending a notification of forthcoming delivery from the central data management system to a computing means of the recipient;
- transporting the postal item from the sender to the recipient, whereby the unique
20 identification number is read at more than one location during transport of the postal item and information about the location of the identified postal item is sent to the central data management system, which sends the information about the current location of the postal item to the computing means of the recipient and/or of the sender.

25 In one embodiment of the invention, the unique identification number and the address information about the recipient are printed on an identification label which is attached to the postal item. Thereby, the unique identification number can be coded in a barcode which is printed on the label. The unique identification number can also
30 be printed in plain writing on the label in addition to being encoded in the barcode.

Preferably, the delivery data which is entered into the computer means at the sender's site comprises at least information about the sender's identity, the recipient's address and notification rules.

Further preferably, the transport identification number is an air waybill number (AWB), whereby at least some of the delivery data is coded in the transport identification number.

5

One of the main advantages of the method according to the invention is the fact that AWB reading errors at the sender's site can be avoided, because when a courier person receives a postal item from a sender, no data has to be read except for the barcode of the label attached to the postal item. Furthermore, no allocation of a –
10 possibly incorrectly scanned - AWB to a postal item has to take place after the postal item has been picked up. Instead, the allocation of an AWB to a postal item can even be carried out by the central data management even before a postal item is picked up by the courier. Since the sender has already entered delivery information into a web portal before the postal item is picked up, this information can be used by the
15 central data management and the AWB can be coded to an extent that the courier can even know which customer the postal item comes from and where it is heading. Therefore, the new method reduces the need for pre-allocation of transport identification numbers like AWBs and improves the pick up speed of the courier. Furthermore, the method allows for proactive notification of senders and recipients.
20 Because no AWB documents have to be filled out by the customer anymore, the amount of paper is reduced which allows for paperless delivery.

Additional advantages, special features and practical refinements of the invention can be gleaned from the subordinate claims and from the presentation below of
25 preferred embodiments making reference to Fig. 1, which shows the main components used for carrying out the invention.

Preferred embodiments of the method according to the invention will be described in detail on the basis of Fig. 1. Thereby, when a sender 10 wishes to send a postal item
30 20 like a parcel to a recipient 11 via a courier service, the sender applies a label 30 to the parcel. The label comprises at least the recipient's address and a barcode 31. This kind of prefabricated labels 30 can be provided by the courier, and a barcode 31 is already printed on each label. A unique identification number is encoded in the barcode which identifies the postal item the label is attached to. Preferably, the

unique identification number encoded in the barcode is also printed in plain writing on the label. In this case, the sender can read the unique identification number.

Usually, the sender can insert at least the recipient's address in specified fields of the label 30. Further fields like the sender's address can be completed in addition. This can either be done in handwritten form or by printing the information by means of printer which is connected to a computer means 40 at the sender's site.

Before or after the label 30 is attached to the postal item 20 by the sender 10, the sender has to enter the unique identification number of the label 30, and thus of the postal item 20, into an application running on a computer means 40 which is connected to a central data management 60 via the internet. This central data management 60 is run by the courier and presents a central component which collects data about every postal item processed by the courier in order to establish a track and trace system. Thereby, the central data management can also be used for creating and transferring notifications to senders and recipients of postal items.

Preferably, the central data management 60 provides for a web portal that can be visited by a sender via the internet. Thereby, registered and non-registered customers can be given access to the web portal. Registered customers can enter the web portal with an ID and a password, for example, whereby the registered customer can use a personalized area providing the customer's contacts, banking account data, notification rules, etc. Non-registered customers have to enter personal information, banking account data, etc. and/or have to fulfill an identification procedure first. Examples of such web portals are well known to a person skilled in the art and can be designed in various ways.

The computer means 40 at the sender's site can be an ordinary personal computer with a connection to the internet, and the application running on the computer means can be the web portal provided by the courier. In order to enter the unique identification number of the label/postal item into the web portal, the sender can read the number from the label 30 and insert it into the specified field of the web portal. Alternatively, the sender can use a barcode scanner connected to the computer

means 40 for scanning the barcode. The unique identification number coded in the barcode will then be communicated into the web portal automatically.

5 In addition to the unique identification number of the label/postal item, the sender 10 can enter further delivery information into the web portal. Preferably, at least the recipient's address is entered or chosen from a contact database. Further information can comprise the sender's address, notification rules, information about the required delivery time, etc. Notification rules can comprise instructions if and when a notification about the current status of the postal item during its transport from the sender to the recipient is to be sent to the sender and/or recipient.

When all information is entered, the central data management 60 creates a transport identification number for the postal item. The transport identification number is provided to the sender 10 as a receipt for goods and an evidence of the contract of carriage. This transport identification number can be an air waybill (AWB) number, for example, which is allocated to the unique identification number of the postal item by the central data management 60. For example, the AWB number can be pulled out from a global running sequence and can be coded to an extent that one can even know which customer/customer's site a postal item came from and where it is heading. Because the AWB can be created after the sender has entered delivery information and the unique identification number of the label/postal item into the web portal of the courier, this information can be used by the central data management in order to code the AWB. Furthermore, the correct AWB is always allocated to the postal item.

25 When the label 30 has been attached to the postal item 20 and the required information has been entered into the web portal via the computer means 40 by the sender 10, the courier can pick up the postal item 20 at the sender's site. Thereby, the person picking up the postal item 20 can simply receive the postal item 20 from the sender without having to record or scan any handwritten information from the postal item 20. Usually, the courier will only have to scan the barcode 31 from the label 30 which can be recorded reliably. Thereby, the courier can verify that the postal item 20 has been picked up at the customer's site, which is the first step of

tracking and tracing the postal item 20 during its transport from the sender to the recipient.

- Once the postal item has been picked up, this information is transmitted to the central data management 60. The information about pick up can be sent directly from a mobile handheld device to the central data management 60, or the mobile handheld device is inserted into a cradle in the courier vehicle which has a wireless connection to the central data management 60, for example.
- According to the delivery information and notification rules entered into the web portal by the sender 10, the central data management 60 can send a notification of forthcoming delivery to a computer means 50 at the recipient's site via the internet whenever the postal item 20 has passed an important station during its transport. When the postal item 20 is detected at these stations by scanning the barcode from the label 30, for example, corresponding information is sent to the central data management 60 which can send notifications both to the sender 10 and/or the recipient 11. This allows for a proactive notification system. If there is any delay, the system will advise the next best option for the customer or even trigger a person to contact the customer.

List of reference numerals

	10	sender, customer
	11	recipient
5	20	postal item, parcel
	30	label, identification label
	31	barcode
	40	computer means at sender's site, web portal
	50	computer means at recipient's site, web portal
10	60	central data management

What is claimed:

1. Method for transport and delivery of postal items (20) between a sender (10) and a recipient (11), which comprises at least the following steps:

- providing a postal item (20) with at least a unique identification number and address information of the recipient (11);
- importing the unique identification number and delivery information into a computer means (40) at the sender's site;
- transferring the unique identification number and the delivery data from the computer means (40) to a central data management system (60) via the internet;
- creating a transport identification number for the postal item (20) by the central data management system (60) and allocating the transport identification number to the unique identification number of said postal item (20);
- sending a notification of forthcoming delivery from the central data management system (60) to a computing means of the recipient (11);
- transporting the postal item (20) from the sender (10) to the recipient (11), whereby the unique identification number of the postal item (20) is read at more than one location during transport of the postal item (20) and information about the location of the identified postal item (20) is sent to the central data management system (60), which sends the information about the current location of the postal item (20) to the computing means (40;50) of the recipient (11) and/or of the sender (10).

2. The method according to Claim 1,

characterized in that,

the unique identification number and the address information of the recipient are printed on an identification label (30) which can be attached to the postal item (20).

3. The method according to one of Claims 1 and 2,

characterized in that,
the unique identification number is coded in a barcode.

4. The method according to Claim 3,

5 **characterized in that,**
the unique identification number is printed in plain writing in addition to being
encoded in the barcode.

5. The method according to one of Claims 1 to 4,

10 **characterized in that,**
the delivery data which is entered into the computer means (40) at the sender's
site comprises at least information about the sender's identity, the recipient's
address and notification rules.

15 6. The method according to one of Claims 1 to 5,

characterized in that,
the transport identification number is an air waybill number (AWB).

7. The method according to one of Claims 1 to 6,

20 **characterized in that,**
at least some of the delivery data is coded in the transport identification number.

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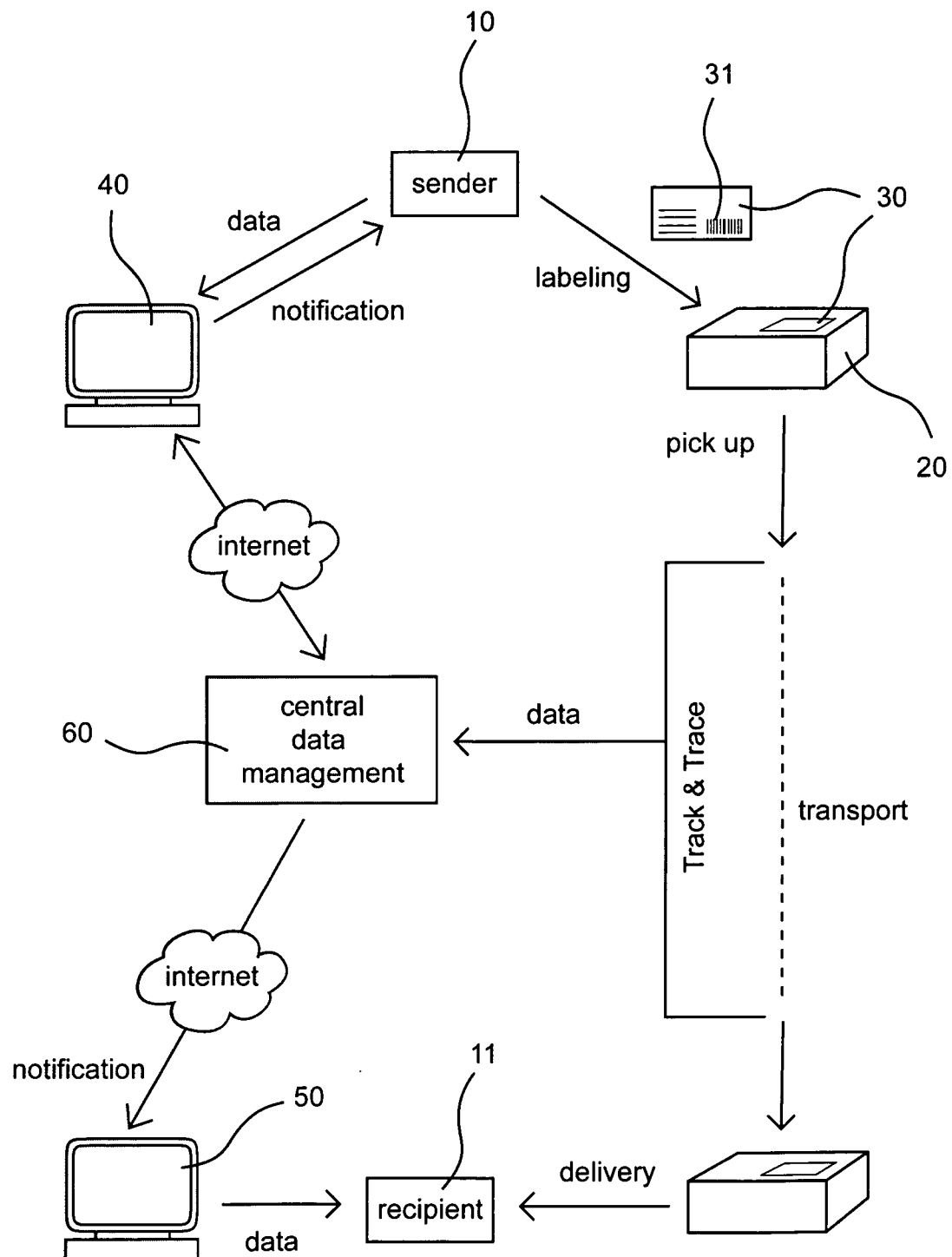


Fig. 1

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2008/010816

A. CLASSIFICATION OF SUBJECT MATTER
 INV. G06Q10/00 G07B17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G06Q G07B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/42979 A (PITNEY BOWES INC [US]) 30 May 2002 (2002-05-30) the whole document -----	1-7



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

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Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2008/010816

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0242979 A	30-05-2002	AU US	1669702 A 6772130 B1
			03-06-2002 03-08-2004