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(54) **PARCEL DEPOSITORY**

(57) A parcel depository 1 is provided comprising a housing 2 having an access point 8 for receipt of a parcel 9 and a secure space 12 from which a delivered parcel 9 can only be subsequently removed from by an authorised person such as an owner of the depository 1. The depository 1 has means such as a camera 19 to identify or to take an image of a courier delivering the parcel 9,

to take an image of the parcel when the parcel 9 is in the secure space 12; and to associate the images of the parcel with the courier identity, or the image of the courier. The depository 1 may be part of a larger parcel delivery system and provide a courier and or owner of the depository, with proof of delivery.

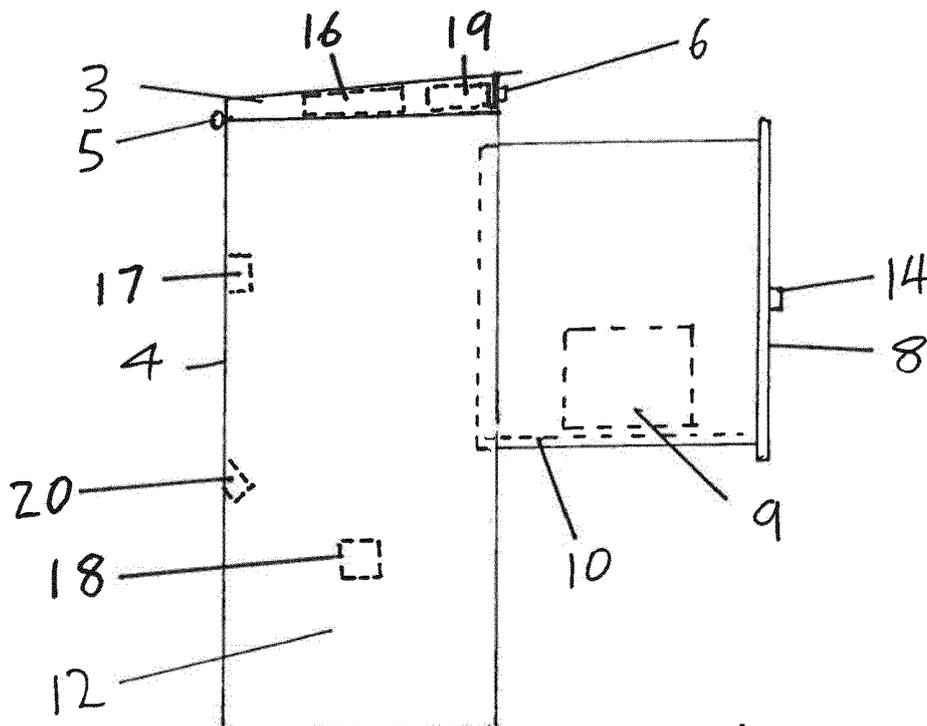


Figure 2

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## Description

**[0001]** The present invention relates to a parcel depository suitable for receiving and storing parcels in a secure manner and particularly, but not exclusively, to such a depository as may be used at a residential premises for the receipt of parcel by postal or courier services.

**[0002]** When letters are delivered through a letterbox, the size of the letterbox opening normally restricts access to the inside of the letterbox, which may be the inside of a building, where the letterbox is mounted in the front door, or in a wall of the building. Thus when the letter is delivered it cannot subsequently be easily removed, except by the person who has access to the building or, in the case of a standalone letterbox, by the person who has a key to unlock that letterbox. For the purposes of the present specification, the terms "lock" and "key" includes traditional locks and keys, locks that accept a key code in the form of a combination code entered on a keypad on the lock, locks that respond to a key in the form of a magnetic swipe card or transponder, or any such equivalent devices.

**[0003]** When large parcels are delivered to residential premises, there is often no secure way of depositing the parcel if no one is at home. In such circumstances, the parcel will typically be left with a neighbour, if a neighbour is in, left in a relatively insecure location, or will be returned the post office / courier depot to await either redelivery or collection.

**[0004]** Recently, the number of parcels being delivered to private houses has increased, mainly due to purchases being made over the Internet. For people who are working during normal delivery hours, it can be very frustrating having to collect parcels from the local delivery depot or arranging for redelivery. Also from the perspective of the person/company making the delivery, there are additional costs associated with making a return journey. There is therefore a need for a secure parcel depository which will enable parcels to be left relatively securely, but which parcel depository is relatively inexpensive.

**[0005]** UK patent application number 1302157, discloses a parcel depository in the form of a cabinet with a locked panel (which could be the lid, one of the sides or the front) which may be opened by an "owner" (usually by means of a key). The cabinet has an upper drawer occupying slightly more than the top half of the cabinet. The drawer is arranged to be opened by a delivery person (without a key) who places a parcel to be delivered in the open drawer and then closes the drawer. When the drawer is closed, two flaps in the bottom of the drawer then swing downwards into the lower part of the cabinet, allowing the parcel to drop into the bottom of the cabinet. If a subsequent delivery is to be made, a handle has to first be turned which raises the flaps to permit the drawer to be opened and a subsequent delivery to be made.

**[0006]** An advantage of the above depository is that the flaps prevent a subsequent delivery person (or anyone else) from being able to reach through the drawer to

reach any previously delivered parcels. When sufficient parcels have been delivered that they foul the flaps and prevent the flaps from closing (and thus the drawer from opening again), or when a sufficiently large first parcel has been delivered to foul the flaps and prevent the drawer from opening, a subsequent delivery person (or anyone else) is again prevented from opening the drawer to reach the previously delivered parcel or parcels.

**[0007]** As most domestic owners of the depository will typically receive in a day only a number of smaller parcels and perhaps (occasionally) a single larger parcel, the above depository works well for most applications.

**[0008]** With a depository as described above, a parcel may be left in a relatively secure manner, even if the recipient is not present. However, the recipient cannot sign for the parcel, so the courier has no proof that they delivered the parcel. Additionally, if a parcel is not received by an intended recipient (the owner of the depository), then the intended recipient may have a problem establishing this with the supplier, for unlike the situation where a parcel is not received in person at a specific address or delivered into the premises, the absence of a parcel in an unattended depository, may not be sufficient evidence to the supplier that the parcel was not deliver to that depository.

**[0009]** According to a first aspect of the present invention there is provided a parcel depository comprising a housing having an access point for receipt of a parcel and a secure space from which a delivered parcel can only be subsequently removed from by an authorised person, the depository having means to: identify or to take an image of a courier delivering the parcel; to take an image of the parcel when the parcel is in the secure space; and to associate the images of the parcel with the courier identity or the image of the courier.

**[0010]** An advantage of the invention is that it provides means to record delivery of a parcel to the secure space from where it cannot be subsequently removed either by the courier who delivered it or by any other person other than a person authorised by having a key or similar means to permit access of the parcel, who will hereinafter be referred to as "the owner". Furthermore the specific parcel is identified by being photographed and the subsequent image is associated with the identity of the courier or an image of the courier. Thus a record is established that records that the courier delivered the parcel and could not have subsequently removed it.

**[0011]** The access point is arranged to receive a parcel from any individual without the requirement for the individual to have a key, code or any identification means, the depository further comprising a secured retrieval point providing access to a parcel in the secure space, the secured retrieval point being arranged to be accessed only by the authorised person.

**[0012]** Advantageously the parcel depository comprises means: for detecting the presence of a courier; for operating in response thereto the means to identify or to take an image of a courier delivering the parcel; for de-

tecting operation of the depository appropriate to place a parcel in the secure space; and for taking an image of the secure space.

**[0013]** The means for detecting the presence of a courier may be a proximity sensor or preferably means for detecting opening of the access point. This avoids false detections should a courier be walking by to a different location. Also, at commencement of opening the access point, a courier will normally be looking directly at the access point thus, where an image is to be recorded of the courier, this is a good moment at which to record an image.

**[0014]** An image of a courier may be an image of the complete person, an image of their face, or an image of an identification badge or similar, presented or worn by the courier. The important aspect is that a record is made that relates the individual who delivered the parcel with the image of the parcel, once the parcel has been delivered and cannot subsequently be removed by the courier, or anyone else other than the owner.

**[0015]** The courier identity, or the image of the courier, will normally be associated with the image of the parcel in the secure holding space, by the time at which they were both each recorded.

**[0016]** Where the depository takes an image of the courier, the depository preferably comprises a unique identifier which can be read by a reader carried by a courier. The reader may thus record the time the courier was at the parcel depository, which can then be used by a parcel delivery system described below, together with information from the depository, to relate the reader and thus the courier with the parcel delivered.

**[0017]** The reader carried by the courier may be a specific reader, or may be a smart phone with an appropriate application running on it, which may upload data, such as a barcode or similar information read from the depository, directly to an electronic device of a service provider, or similar, running a parcel tracking service or a proof of receipt service, to either couriers, or to recipients with appropriate parcel depositories.

**[0018]** The means to identify a courier may alternatively comprise means in the depository to read an identification device carried by the courier, such as a contactless RFID reader to read a RFID tag carried by the courier. Again this will permit the identity of the courier to be matched to a received parcel.

**[0019]** Preferably the parcel depository has means for transmitting the image of the parcel together with the associated image of the courier, or the courier identity, to a remote electronic device, to which either the owner has access or the courier company, or both, as both may benefit from receiving proof of the delivery.

**[0020]** The access point may be a drawer in the top portion of the housing, wherein the drawer is arranged to slide to an open position where it extends through an opening in the housing and permits a courier outside the housing to place a parcel in the drawer and wherein the drawer is arranged to slide to a closed position, where a

courier outside the housing is prevented from accessing the drawer, the drawer having one or more flaps in the bottom which, when the drawer is closed, permits the parcel to drop through the bottom of the drawer into a secure space in the housing below the drawer, which is a secure holding space. Such an arrangement permits a parcel to be deposited in the drawer, but once the drawer has been closed, the opening of the one or more flaps prevents the drawer being reopened. The one or more flaps have to again be closed before the drawer can be reopened where they then prevent access through the drawer to the previously delivered parcel in the secure holding space.

**[0021]** In the case where the size of the parcel in the space below the one or more flaps or the number of parcels previously delivered, prevents the last parcel or parcels delivered clearing the flaps, then the flaps will be prevented from closing, in turn preventing the drawer from opening and thus preventing access to any parcel still present in the drawer, or part way through the bottom of the drawer. Thus the depository provides the aforementioned advantages of restricting access to previously delivered parcels.

**[0022]** Such a parcel depository may comprise a detector to detect that the drawer is sufficiently closed for the flaps to have opened, or to detect that the flaps have opened, wherein the depository is arranged to take an image of the secure holding space in response thereto. Thus the image is only taken once the parcel is no longer accessible, other than to the owner.

**[0023]** Preferably, the one or more flaps, when opened, extend below the level of the opening and directly prevent the drawer from being opened by coming into contact with the housing. This provides a very simple mechanism for locking the drawer closed when the flaps are open and when the capacity of the holding space has been exceeded.

**[0024]** The depository may preferably comprise two flaps hinged on opposite sides of the drawer base, similar to bomb bay doors on an aircraft. The provision of two flaps limits the volume of the holding space swept by the flaps when they open. This arrangement may also permit the whole floor of the drawer to open, ensuring a parcel does not become lodged in the drawer. Also the opening in the top of the drawer may be slightly restricted, by an inwardly protruding rim or similar, to ensure parcels don't jam in the drawer. If a parcel jams in the opening of the drawer then it will not be possible to close the drawer, which will be evident to the person delivering the parcel. The flaps, which will normally be made of metal, may be lightened by having a number of holes pressed in them.

**[0025]** Advantageously, the vertical depth of the holding space is less than the vertical depth of the drawer. In this manner, the drawer may take up a substantial part of the volume of the depository, maximising the size of parcel which may be received. However, in the absence of a large parcel being delivered, this may still permit a number of smaller parcels to be successively delivered,

with each being securely received.

**[0026]** In a preferred embodiment, the housing has a lockable lid which, when open, permits an authorised recipient of the parcel to retrieve a parcel by reaching through the lid and the bottom of the drawer, when the drawer in the closed position. Alternatively, the housing may have a lockable door which opens into the holding space.

**[0027]** Advantageously, the housing may be made of metal, which may both have sufficient strength for supporting the drawer whilst enabling the housing to have thin walls, maximising the storage space for any given size of depository.

**[0028]** According to a second aspect of the invention, there is provided a parcel delivery system comprising:

a parcel depository comprising a housing having an access point for receipt of a parcel and a secure space from which a delivered parcel can only be subsequently removed by an authorised person, means to take an image of the parcel when the parcel is in the secure space; and means for transmitting the image of the parcel to a remote electronic device; and a remote electronic device, which may be associated with a service provider, arranged to: receive the transmitted image of the parcel and the identity of the parcel depository; to receive the identity of the courier delivering the parcel; and to associate the identity of the courier with the image of the delivered parcel.

**[0029]** A system in accordance with this aspect of the invention enables the remote device to identify what parcel was delivered by whom and may be used as proof of delivery by a courier company for example.

**[0030]** The system may further comprise a reader to be carried by the courier, wherein the parcel depository comprises: means to take an image of the courier and to associate this with the image of the parcel; a unique identifier that can be read by the reader to be carried by the courier; and means to transmit the two associated images to the remote electronic device, the reader to be carried by the courier having means to transmit the identity of the parcel depository with a time stamp indicative of when the parcel depository was visited by the courier to the remote electronic device, the remote electronic device being arranged to match this data with the data received from the parcel depository to identify the courier imaged by the parcel depository.

**[0031]** Alternatively the parcel delivery system may further comprise an identification device to be carried by a courier, wherein the parcel depository comprises means to read the identification device carried by the courier to identify the courier and to transmit this with an associated image of a delivered parcel and the identity of the parcel depository to the remote electronic device. The remote electronic device will then be able to match the data received from the parcel depository with stored data to iden-

tify the courier.

**[0032]** Alternatively the parcel delivery system may further comprise an identification device carried by a courier arranged to transmit either the location of the identification device at the time a parcel is delivered to a depository, or to transmit the identity of a depository to which a parcel is delivered, to the remote electronic device, to permit the remote electronic device to associate the identity of a courier associated with identification device with the image received of the delivered parcel.

**[0033]** The identification device may include a GPS receiver and transmit location information to the remote electronic device which identifies the parcel depository to which a delivery was made from this location information, or the identification device may include a reader which reads the identification of the parcel depository to which a delivery is made, and transmits this information to the remote electronic device.

**[0034]** Each of the above alternatives will permit the electronic device, which may be associated with a service provider, to transmit the image of the parcel to a relevant courier company together with the identity of the courier so this may be used as proof of delivery.

**[0035]** The remote electronic device may alternatively, or also, transmit the image of the parcel to the owner of the parcel depository so that they have a record of what was received and thus can establish if a parcel has not been received.

**[0036]** The service provider referred to above may be part of a courier organisation or may be a separate company, possibly providing a service to a number of courier companies.

**[0037]** One embodiment of the present invention will now be described, by way of example only, with reference to the accompanying drawings and of which:

Figure 1 is a front view of a parcel depository in accordance with the present invention with a drawer open;

Figure 2 is a side elevation of the parcel depository of Figure 1;

Figures 3 and 4 correspond to Figures 1 and 2 but show the drawer closed;

Figures 5 and 6 correspond to Figures 3 and 4, again showing the drawer closed but now with the flaps partially raised;

Figure 7 is a schematic illustration of a parcel delivery system in accordance with a second aspect of the invention and incorporating the parcel depository of Figure 1 to 6; and

Figure 8 is a flow diagram of the steps performed by the parcel delivery system of Figure 7.

**[0038]** Referring now to Figures 1 and 2, a parcel depository, indicated generally as 1, comprises a metal housing 2 having a lid 3 attached to the main body 4 by hinge 5. The lid 3 is retained in a closed position by lock 6. In an opening 7, in the front of the housing 2, is located

a drawer 8. The drawer 8 is mounted on runners (not shown) so that it may extend in an open position out of the housing 2, as illustrated in Figure 2. In this position, a parcel 9, to be deposited in the depository for subsequent collection, is placed in the drawer 8, the parcel 9 being shown in broken line.

**[0039]** The bottom of the drawer 8 is formed by two flaps 10 and 11 (shown in broken line) hinged to respective sides of the drawer 8. The flaps 10 and 11 are held closed by resting on the bottom of the opening 7, which even in the fully opened position shown in Figures 1 still supports the back edge of flaps 10 and 11. However, any number of suitable devices or mechanisms may be employed to ensure the flaps cannot open when the drawer is open.

**[0040]** The lid 3 of the parcel depository 1 houses an electronic processor 16 and power supply and is connected to two switches 17 and 18 and two cameras 19 and 20. When the drawer 8 is opened the first switch 17 is closed and the processor 16 causes the first camera to take an image, which will be of a person, such as a courier, opening the drawer 8 to deposit a parcel 9 in the depository 1.

**[0041]** Referring now to Figure 3 and 4, these show the drawer in a closed position where the flaps 10 and 11 are no longer held closed by the bottom of the opening 7 in the housing 2. Here the flaps 10, 11 may swing open, either under gravity or by biasing means, to permit the parcel 9 to fall into holding space 12 below the drawer. When the flaps open they come into contact and close the second switch 18 and the processor 16 causes the second camera 20 to take an image of the received parcel 9 in the secure holding space 12. The images are stored by the processor and used, together with a barcode 13 on the front of the depository, in a parcel delivery system of which the depository 1 forms a part and which is described later, with reference to Figures 7 and 8.

**[0042]** The flaps 10 and 11 are connected via a linkage mechanism (not shown) to handle 14 on the front of the drawer 8. The opening of the flaps 10 and 11, by gravity, causes the handle 14 to rotate in the direction of arrow 15, until it is in a vertical position as shown in Figures 3 and 4.

**[0043]** In order to retrieve a parcel 9, a person with a key unlocks lock 6, opens the lid 3 and reaches down through the open flaps 10 and 11 to lift the parcel from the holding space 12.

**[0044]** In the position shown in Figures 3 and 4, the flaps 10 and 11 prevent the drawer 8 being opened and thereby prevent access to (and thus through) the drawer 8 to the parcel 9. On arriving at the parcel depository 1 and finding it with the drawer 8 closed, as illustrated in Figures 3 and 4, either with or without a parcel 9 already present, a courier rotates the handle 14 in the direction of arrow 16, as shown in Figure 5. If a parcel 9a, as shown in Figure 5, or a plurality of parcels previously delivered (not shown) are small enough to permit the flaps 10 and 11 to close on rotation of the handle 14, the flaps 10 and

11 may be raised, through the intermediate position shown in Figures 5 and 6, back to the position shown in Figures 1 and 2. Thus the drawer 8 may again be opened to receive another parcel, as shown in Figure 2. Here the flaps 10 and 11 will again prevent access to any parcel already in the holding space 12, as previously described.

**[0045]** If a number of small parcels have been received, or a large parcel 9 has been received, as illustrated in Figures 3 and 4, then the flaps 10 and 11 will be prevented from closing from closing, preventing the handle 14 being rotated and the drawer 8 being opened. Thus nobody will then be able to open the drawer 8 until the parcel 9 has been removed by the owner of the depository with a key for the lock 6.

**[0046]** An important advantage of the present invention is that it permits a parcel 9 to be received in the depository 1, which parcel 9 may have maximum dimensions almost equal to the internal space of the drawer 8. Although no subsequent parcels may be delivered, a large parcel may be safely stored, because on closing of the drawer 8 it will at least partially drop through flaps 10 and 11, preventing the drawer 8 from subsequently being opened and instead requiring the parcel 9 to be removed by unlocking the lid 3 and taking the parcel out the top. This is particularly advantageous, for many households receive a number of small parcels and thus the depository 1 will enable subsequent deliveries of small parcels to be made without the parcel depository being emptied. However, in the event that a single large parcel should be delivered on any particular day, this may still be safely received, though any parcels received subsequently may have to be redelivered.

**[0047]** The parcel depository 1 may also additionally receive letters and may be provided with a standard letterbox opening 15. This will normally permit letters to be delivered even in the event that no further parcels may be delivered.

**[0048]** Referring now to Figure 7, there is illustrated a parcel delivery system in accordance with the second aspect of the invention. The parcel delivery system incorporates a parcel depository 1 of Figures 1 to 6 and there is illustrated in Figure 7 the first switch 17, first camera 19, the second switch 18 and the second camera 20, all connected to the processor 16.

**[0049]** The electronic processor 16 of the parcel depository 1 is connected by the Worldwide Web, represented by The Cloud 21. Also connected to the The Cloud 21 is a bar code reader 22 carried by a courier, a computer device associated with an owner 25 of the depository 1, a computer system of a service provider 23 and a computer system of a courier company 24.

**[0050]** The computer system of the service provider may be part of a courier company computer system 24, it may be a service provider 23 associated with the manufacturer or distributor of parcel depositories 1, or a separate company providing a service to owners 25 of parcel depositories 1 and courier companies 24.

**[0051]** Operation of the parcel delivery system illustrat-

ed in Figure 7 will now be described with reference to Figure 8.

**[0052]** With particular reference to Figure 8, but also with reference to the parcel depository 1 of Figures 1 to 6 and the parcel delivery system of Figure 7, in step A of Figure 8, opening of the draw 8 of parcel depository 1 causes the first switch 17 to trigger the first camera 19, to take an image of the courier delivering the parcel, as per step B of Figure 8.

**[0053]** On closing the draw 8, flaps 10 and 11 contact the second switch 18, causing the second switch 18 to trigger the second camera 20, to take an image of the delivered parcel 9 once in the secure holding space 12, as per step C of Figure 8.

**[0054]** In its simplest form, the only other component of the parcel delivery system may be the computer device associated with an owner 25. In this case the electronic processor 16 in the parcel depository 1 may then provide an image of both the parcel delivered and the courier to the computer device associated with an owner 25 of the parcel depository 1 and this may be provided, via The Cloud 21 or by a direct link. This would be in accordance with step D of Figure 8.

**[0055]** Alternatively, where the parcel delivery system additionally includes the bar code reader 22, service provider 23 and courier company 24, as illustrated in Figure 7, the courier on delivering the parcel, either before delivering the parcel or after delivering the parcel, uses bar code reader 22 to read bar code 13 on the outside of the parcel depository 1, as per step E of Figure 8. The information from the bar code reader 22 is then provided to service provider 23. The service provider receives, from the bar code reader 22, information relating to the parcel depository 1 and information relating to the bar code reader 22 which is associated with the courier delivering the parcel and the courier company 24. The bar code reader 22 may provide all the information regarding the courier company 24, or the service provider may already hold this information and match it with the bar code reader 22. Either way the bar code reader 22 notifies the service provider of the identity of the courier, as per step F of Figure 8.

**[0056]** As per step G of Figure 8 the service provider 23 then notifies the courier company 24 and the owner 25 of the parcel delivery, providing images to both of the safely received parcel 9 and the courier delivering the parcel 9.

**[0057]** In the system described with reference to Figures 7 and 8, the bar code reader 22 and the bar code 13 on the parcel depository 1 are used to identify the courier at the parcel depository at a particular time. The system takes an image of the courier to further assist in identification of the courier, but if the parcel depository 1 did not have a second camera the service provider would still be able to match the identity of the courier delivering the parcel 9, by matching the information read by the bar code reader 22 and the time at which the bar code reader 22 was at the parcel depository 1, with the image the

service provider receives from the parcel depository 1. As an alternative to the bar code 13 and bar code reader 22, the bar code reader 22 could instead be a GPS device, which would again be able to identify that the GPS device 22 was at the parcel depository 1 at the time of the parcel 9 was delivered, as evidenced by the image taken by the second camera 20.

**[0058]** As an example of a further alternative, the bar code reader carried by the courier could be an RFID device or similar device, which could be identified by the electronic processor 16 of the parcel depository 1. The parcel depository 1 would then itself be able to associate the identity of the person delivering the parcel 9 with the image taken of the parcel 9.

**[0059]** The invention has been described above with reference to the specific embodiment illustrated and with reference to examples of alternative implementations. These are again given by way of example only and it should be appreciated that many different arrangements of parcel depositories and parcel delivery systems are possible, which fall within the scope of the appended claims. For example, it will be appreciated that instead of a lockable lid on the depository a lockable access panel or door could be provided elsewhere in the housing to provide access to the holding spacing 12.

## Claims

1. A parcel depository comprising a housing having an access point for receipt of a parcel and a secure space from which a delivered parcel can only be subsequently removed from by an authorised person, the depository having means to identify or to take an image of a courier delivering the parcel, to take an image of the parcel when the parcel is in the secure space; and to associate the images of the parcel with the courier identity or the image of the courier.
2. A parcel depository as claimed in Claim 1, wherein the access point is arranged to receive a parcel from any individual without the requirement for the individual to have a key, code or any identification means, the depository further comprising a secured retrieval point providing access to a parcel in the secure space, the secured retrieval point being arranged to be accessed only by the authorised person.
3. A parcel depository as claimed in any one of Claims 1 or 2, comprising means: for detecting the presence of a courier; for operating in response thereto the means to identify or to take an image of a courier delivering the parcel; for detecting operation of the depository appropriate to place a parcel in the secure space; and for taking an image of the secure space.
4. A parcel depository as claimed in any preceding

claim, comprising means to take an image of the courier and further comprising a unique identifier which can be read by a reader carried by a courier.

5. A parcel depository as claimed in any preceding claim, wherein the access point is a drawer in the top portion of the housing, wherein the drawer is arranged to slide to an open position where it extends through an opening in the housing and permits a courier outside the housing to place a parcel in the drawer and wherein the drawer is arranged to slide to a closed position, where a courier outside the housing is prevented from accessing the drawer, the drawer having one or more flaps in the bottom which, when the drawer is closed, permits the parcel to drop through the bottom of the drawer into a secure space in the housing below the drawer, which is a secure holding space.
6. A parcel depository as claimed in Claim 5, comprising a detector to detect that the drawer is sufficiently closed for the flaps to have opened, or to detect that the flaps have opened, wherein the depository is arranged to take an image of the secure holding space in response thereto.
7. A depository as claimed in Claim 5 or 6, wherein the drawer is prevented from being opened unless the one or more flaps are closed, such that the one or more flaps prevent access by a person outside the housing to the secure holding space through the drawer, when the drawer is open or partly open.
8. A depository as claimed in any one of Claims 5 to 7, wherein one or more flaps, when open, extend below the level of the opening and directly prevent the drawer from being opened by coming into contact with the housing.
9. A depository as claimed in any one of claims 5 to 8, further comprising mechanical means for closing the one or more flaps prior to the drawer being opened, wherein the mechanical means may be operated from the outside of the housing.
10. A parcel delivery system comprising:
 

parcel depository comprising a housing having an access point for receipt of a parcel and a secure space from which a delivered parcel can only be subsequently removed by an authorised person, means to take an image of the parcel when the parcel is in the secure space; and means for transmitting the image of the parcel to a remote electronic device; and a remote electronic device arranged to: receive the transmitted image of the parcel and the identity of the parcel depository; to receive the identity

tivity of the courier delivering the parcel; and to associate the identity of the courier with the image of the delivered parcel.

11. A parcel delivery system as claimed in Claim 10, further comprising a reader to be carried by the courier, wherein the parcel depository comprises: means to take an image of the courier and to associate this with the image of the parcel; a unique identifier that can be read by the reader to be carried by the courier; and means to transmit the two associated images to the remote electronic device, the reader to be carried by the courier having means to transmit the identity of the parcel depository with a time stamp indicative of when the parcel depository was visited by the courier to the electronic device associated with the service provider, the electronic device being arranged to match this data with the data received from the parcel depository to identify the courier imaged by the parcel depository.
12. A parcel delivery system as claimed in Claim 10, further comprising an identification device to be carried by a courier, wherein the parcel depository comprises means to read the identification device carried by the courier to identify the courier and to transmit this with an associated image of a delivered parcel and the identity of the parcel depository to the remote electronic device, the remote electronic device being arranged to match the data received from the parcel depository with stored data to identify the courier.
13. A parcel delivery system as claimed in Claim 10 further comprising an identification device carried by a courier arranged to transmit either the location of the identification device at the time a parcel is delivered to a depository, or to transmit the identity of a depository to which a parcel is delivered, to the remote electronic device to permit the remote electronic device to associate the identity of a courier associated with identification device with the image received of the delivered parcel.
14. A parcel delivery system as claimed in Claim 13 wherein the identification device includes a reader which reads the identification of the parcel depository to which a delivery is made, and transmits this information to the remote electronic device.
15. A parcel delivery system as claimed in any one of Claims 10 to 13, wherein the remote electronic device is associated with the service provider and is arranged to transmit the image of the parcel to at least one of a courier company and the owner of the depository.

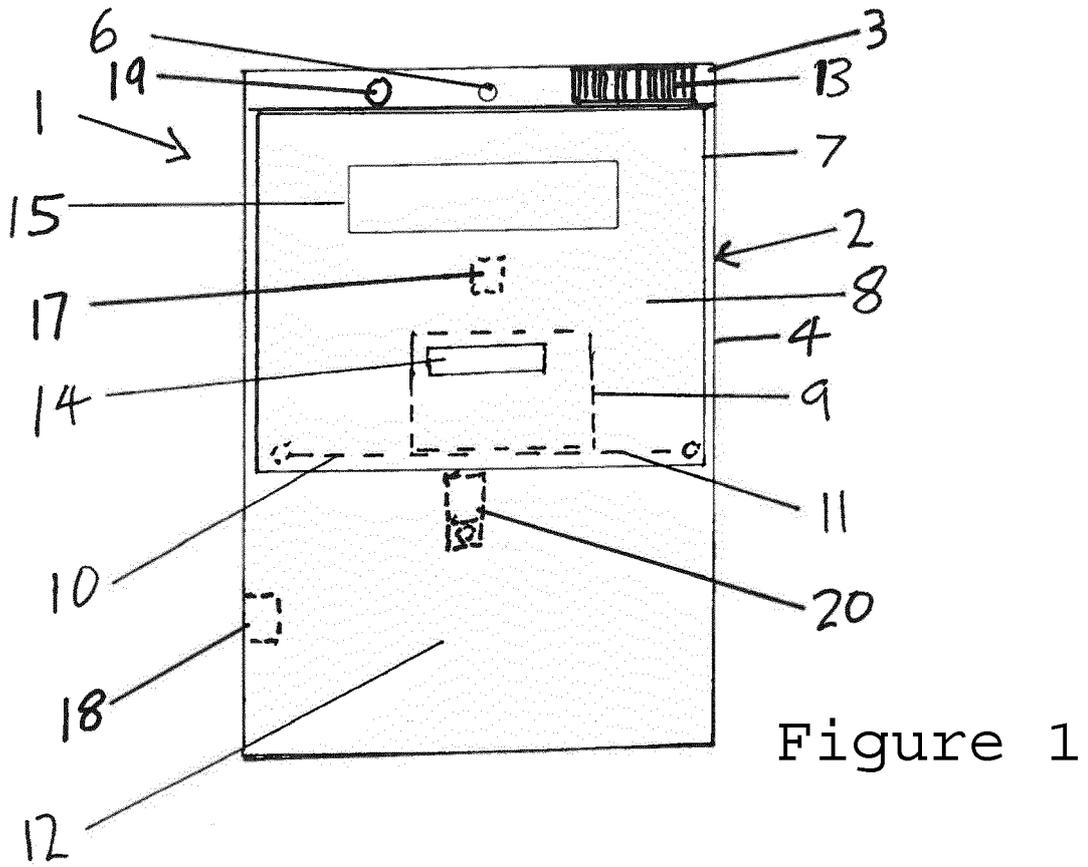


Figure 1

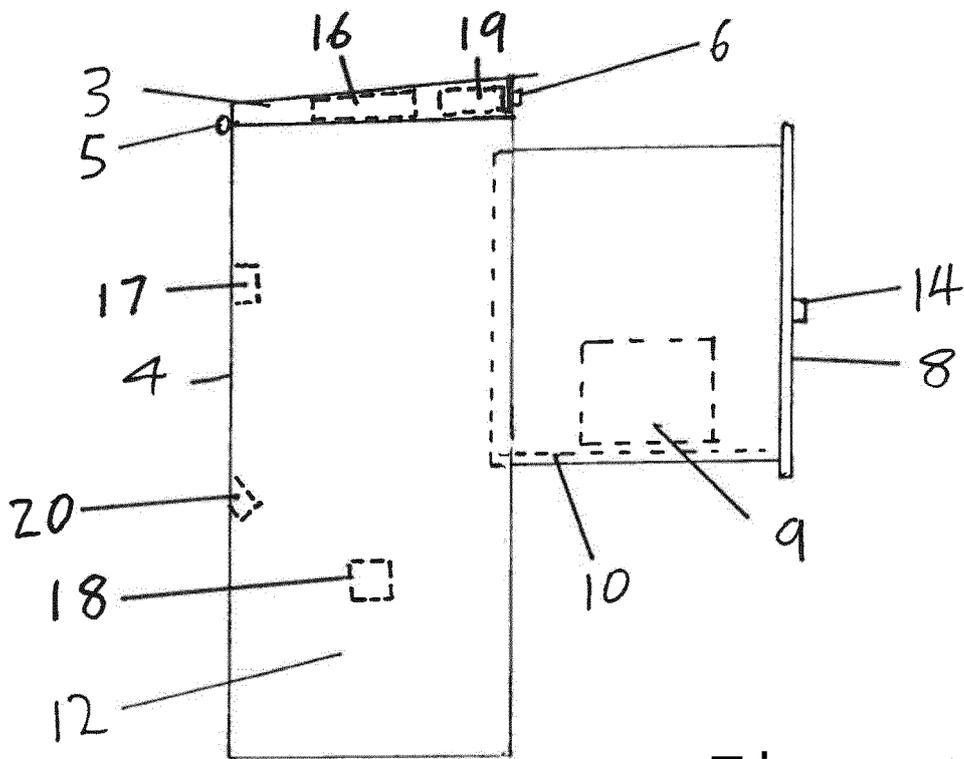


Figure 2

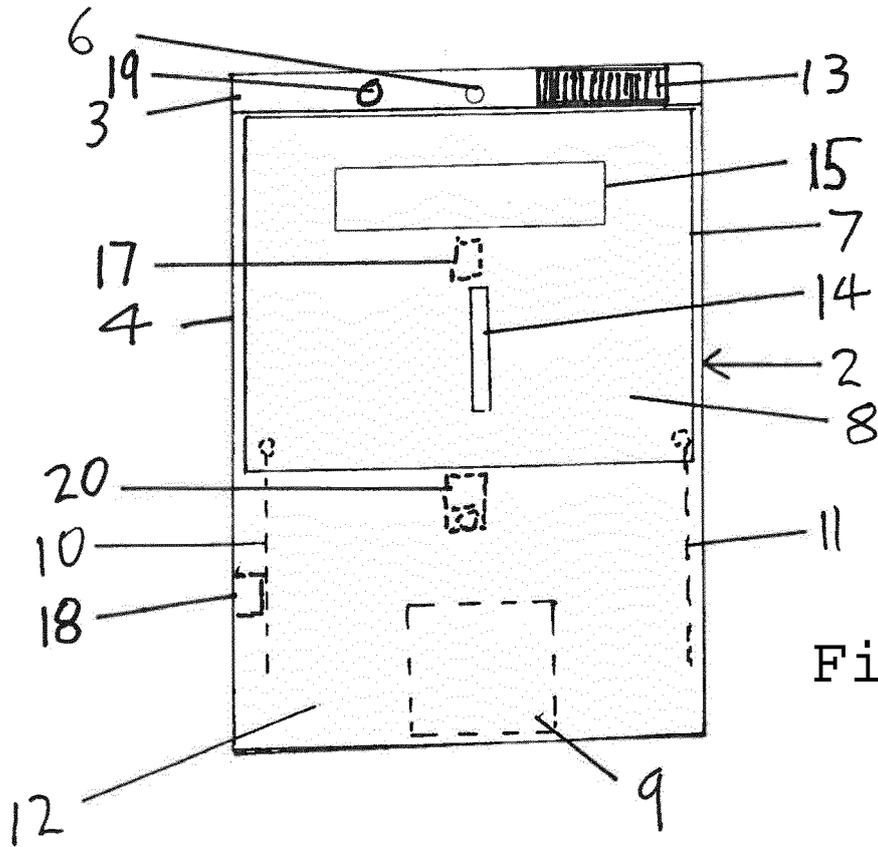


Figure 3

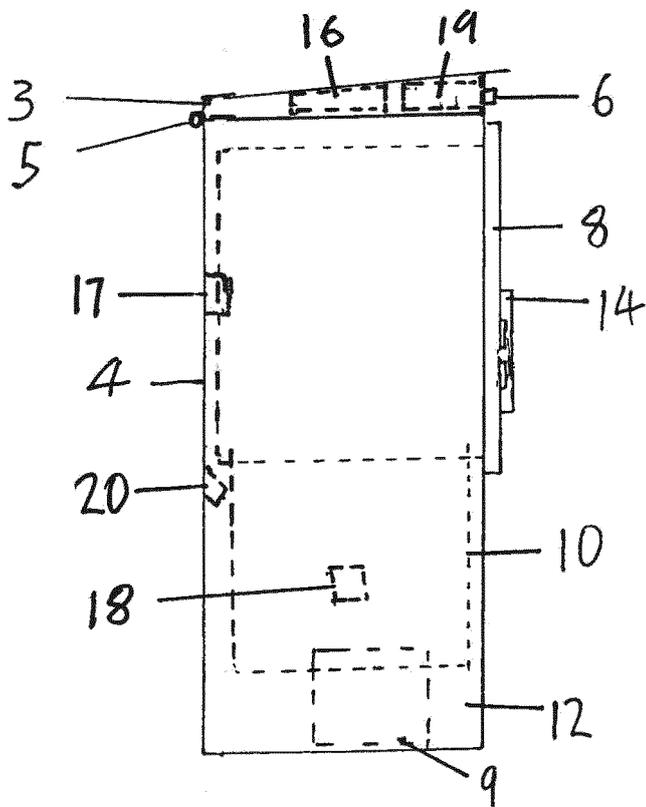
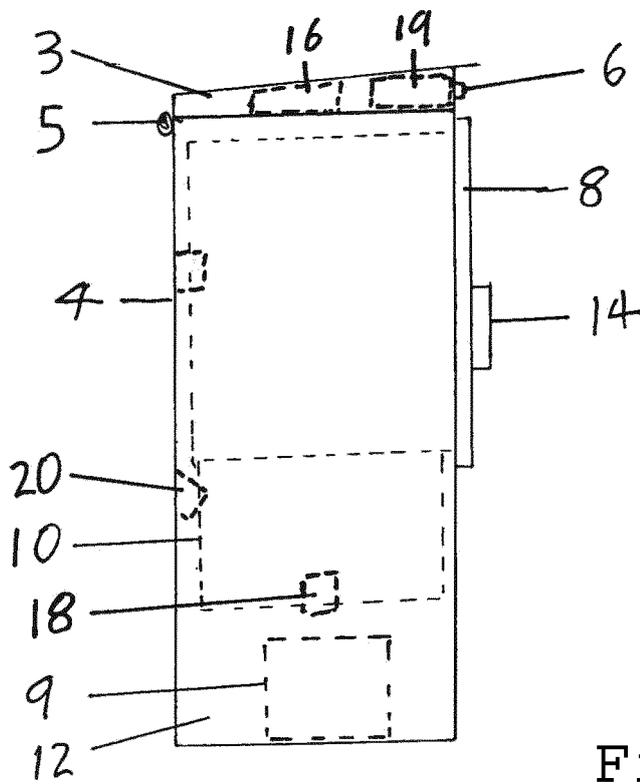
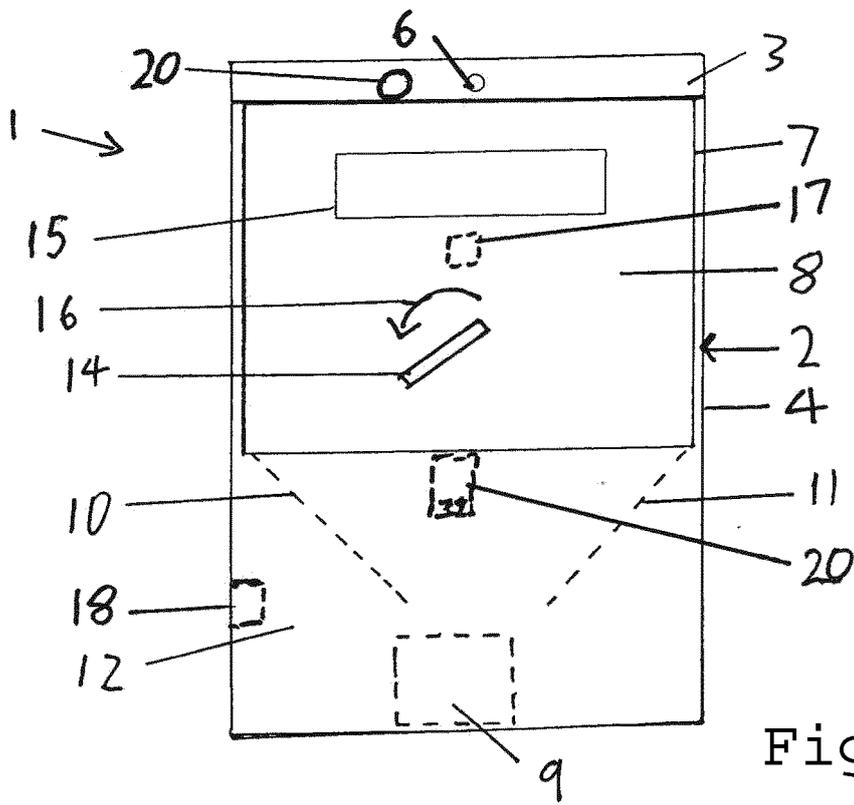


Figure 4



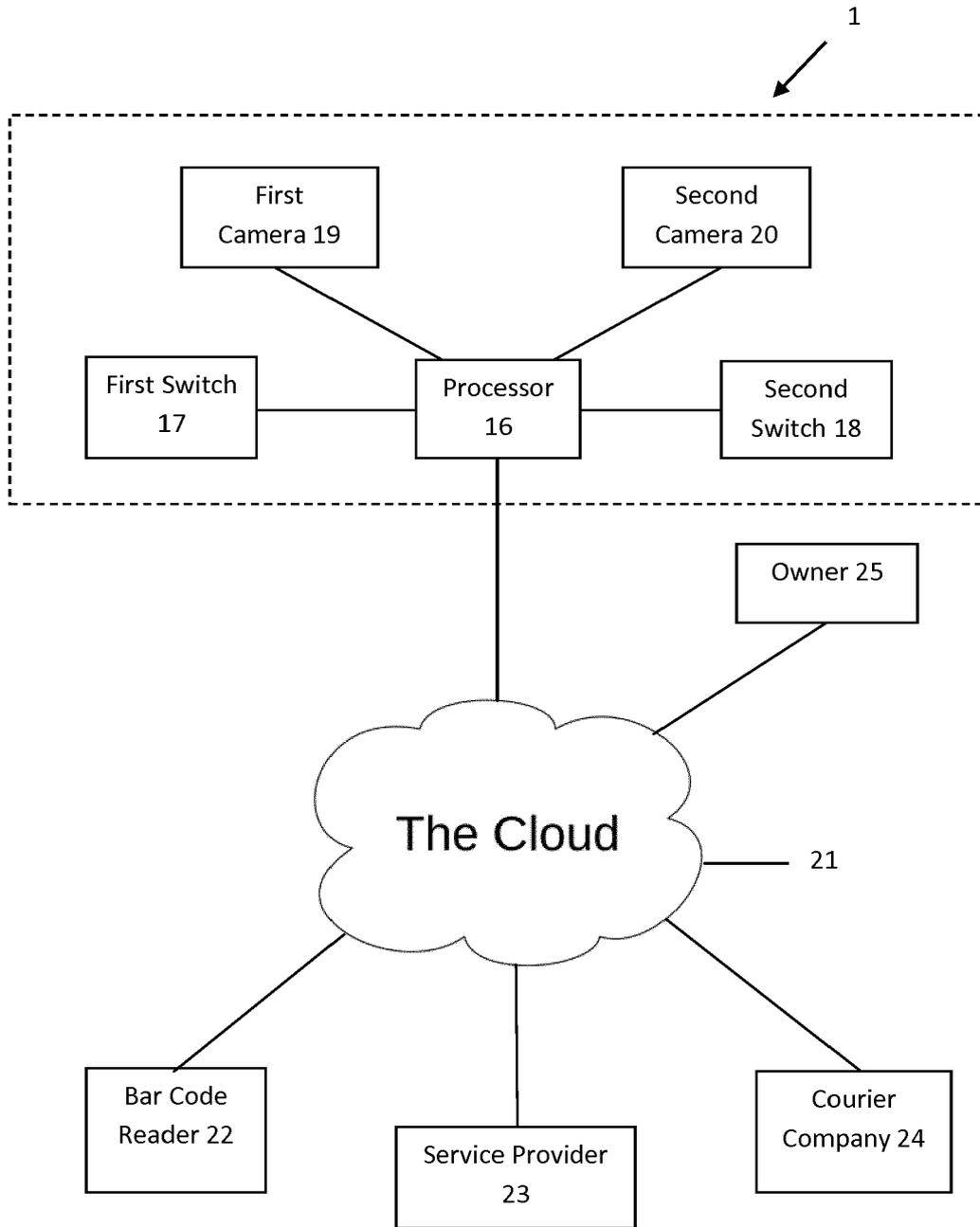


Figure 7

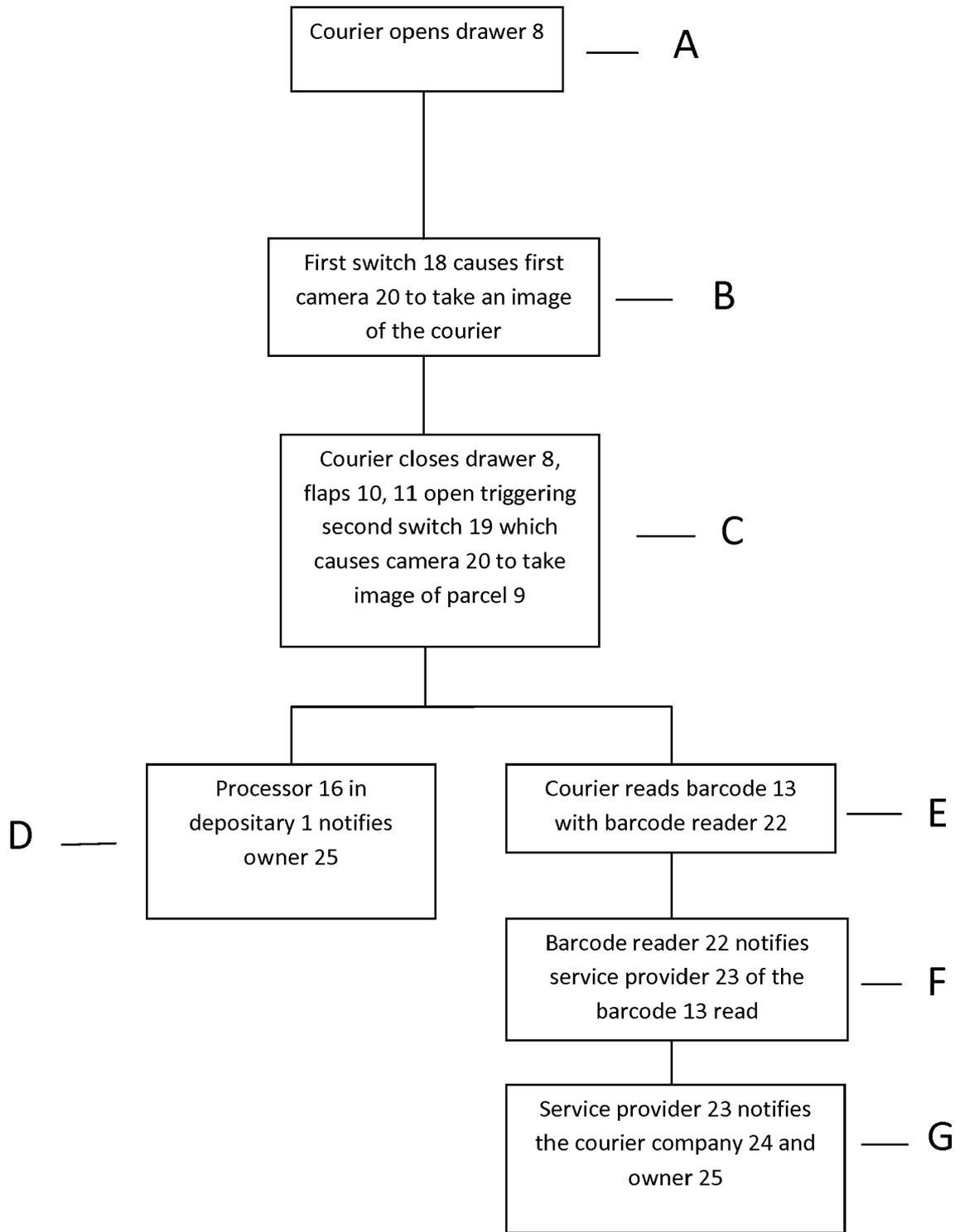


Figure 8



EUROPEAN SEARCH REPORT

Application Number  
EP 17 16 3380

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 2 835 078 A1 (COTTNER TECHNOLOGIES LTD [IE]) 11 February 2015 (2015-02-11)	1-4, 10-15	INV. A47G29/14
Y	* abstract; figures 1,2,13,14 * * paragraphs [0012], [0015], [0016], [0022], [0032] - [0036], [0040], [0041], [0044], [0046], [0065], [0066], [0070], [0086], [0087] *	1-15	
X	US 2005/104730 A1 (YANG SUNNEY [US]) 19 May 2005 (2005-05-19) * abstract; figures 1-4 * * paragraphs [0014], [0015], [0018], [0019], [0023] - [0029], [0033], [0035] *	1,3, 10-15	
Y,D	GB 2 510 575 A (WILLCOX BRIAN [GB]) 13 August 2014 (2014-08-13) * abstract; figures 1-8 *	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			A47G
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		6 September 2017	Longo dit Operti, T
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ON EUROPEAN PATENT APPLICATION NO.**

EP 17 16 3380

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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06-09-2017

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
	EP 2835078      A1	11-02-2015	NONE	
	US 2005104730      A1	19-05-2005	NONE	
15	GB 2510575      A	13-08-2014	NONE	
20				
25				
30				
35				
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45				
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**Patent documents cited in the description**

- GB 1302157 A [0005]