A box enclosure (44) constructed of any material having a movable panel and or lid with holes (8) that align when the said panel and or lid is in a closed position allowing a adhesive label (9) to adhere to itself through the said holes to form a permanent seal locking the box enclosure in a closed position removing the said label seal unlocks the box allowing the box to be reused when replacing the adhesive member label seal (9) or the box enclosure may be collapsed for storage.
Reusable Box

This invention relates to boxes and enclosures used for postal and/or parcel delivery but may be associated with any use that requires a container to carry or store goods and/or products of any description.

Generally a box enclosure made of paper, cardboard, plastic or combinations or the like for packaging goods / products to store or transport said goods through a courier or postal system, the material is cut or stamped in order to form a said box having a base, sides and two half lids or one full lid that folds to form the said box the box is sealed or glued to secure the box in a closed secure nature, opening the box requires the removal of the tape or breaking the glue seal both methods often damaging the box.

Please refer to Fig 16.

According to the present invention there is provided a collapsible box enclosure or the like that when formed to construct a box enclosure the said construction is held in its formed construction by a simple extended panel (43) that engages with the main body of the constructed box enclosure at point (47) but other points of location may be selected the extended panel (43) may simply be a panel and or lid section or a full length panel as described in the following example of the box enclosure (44).

A flat layer piece or pieces of material that may include cardboard, corrugated cardboard, plastic, paper or any preferred material is cut or punch formed to provide a foldable piece of material that when assembled will create a box enclosure (44).

The formed box enclosure has hole holes (8) that allow securing sealing means using a member or label (9) with at least one portion coated with adhesive that may be flexible sufficient to fold of the edge of the enclosure at fold point (46) to meet face to face forming a seal through the said hole holes (8) attaching the label seal to itself through the hole holes apertures or the like (8) (8/9) once in position the box enclosure can not be opened without firstly removing the said member label which may also be defined as a seal, when removing the label seal (9) the box enclosure (44) may then be disassembled and collapsed by pulling or sliding the extended panel and or lid out of the fixed position (47) the said box enclosure releases to form a flat layout for storage the adhesive member label seal may be flexible in order to fold over the edge of the box enclosure or multiple member label seals may be used as may be required, the box enclosure is reusable simply by reassembly and replacing the label seal.

The layout may include panels (45) that fold over to form extra security and rigidity with the option of including lugs (40) that locate slots (41) the said lugs and slots enhance the stability of the panels when the box enclosure (44) is formed.

The adhesive member label seal or the like (9) has sufficient area to place the destination address the senders address and postal, franking, carriage fees individually or combinations thereof along with security identification data and markings including electronic or physical means or any combinations thereof including transmitted data such as rfid.
The adhesive label (9) may include nicks kiss cuts and or weakened areas (42) that break or indicate tampering or partial removal of the label seal means any combinations may be included to identify tampering

The adhesive label may include paper, plastic or thermal paper

Although the aforementioned box enclosure is described as requiring no glue or adhesive tape to form or secure the box it may be an advantage in some cases to include these methods glue and or tape in some forms of the invention or the box enclosure may require additional fixing holding means such as clasp, Velcro, string and the like, the invention will still operate effectively including any of the aforementioned means

The box enclosure may include lugs (40) that are held in position through slots (41) when the box enclosure is in a assembled manner, the said lugs (40) and (slots (41) release when the box enclosure (44) is opened

The lid of the box enclosure may function with a level or recessed panel, lid or lids section or combinations thereof which ever is more suitable to form the aligned hole or holes (8) and or (8/9) or it may be the case that a label plate is added on to an existing box enclosure to perform the secure locking in this case the invention is a retrofit to existing box enclosures

When the box enclosure (44) howsoever formed as described in any of the aforementioned means is locked in a closed position opening the box enclosure (44) is achieved by simply removing the label (9), the label (9) peels away from the box enclosure (44) leaving little or no damage to the box enclosure breaking the permanent seal formed through the hole holes (8/9) of the box enclosure and the hole holes of the box enclosure body panel thus breaking the seal enabling access and or removal of the contents of the box enclosure, any secondary securing or holdings means may be released as normal.

Once the label seal (9) has been removed reusing the box enclosure is carried out simply by affixing another secure label seal as described earlier

The box enclosure may serve any purpose including product sales product returns, inkjet cartridge and toner recycling, phone recycling and the like, much larger versions may operate in the same way the box enclosure may also include a simple secure storage means any authentication may be marked on the box enclosure or the label seal or both

The box enclosure may have more than one panel and or lids with fixing and securing means as described throughout a single panel lid has been described to simplify the description of operation.

Although this invention is described giving collapsible box enclosure the invention may be applied to any box enclosure howsoever formed.
Claim 1
A box enclosure or the like having a movable panel and or lid with holes that align when the box enclosure is in a closed position

Claim 2
A box as mentioned in claim 1 where the panel and or lid may close in a recessed position

Claim 3
A box enclosure as mentioned in claims 1 and 2 that has lugs that engage with slots locking panels in position

Claim 4
A box enclosure as mentioned in any preceding claims having velcro or hook and eye holding means to hold panel and or lid in place

Claim 5
A box enclosure as mentioned in any of the preceding claims that has a clasp holding mechanism or the like that holds panels and or lids in place

Claim 6
A box enclosure as mentioned in any of the preceding claims that has string or the like support

Claim 7
A label with adhesive on at least one surface that adheres to the box enclosure mentioned in any of the preceding claims that extends to form a permanent seal through hole apertures

Claim 8
A label as mentioned in claim 7 that has adhesive that forms a non permanent seal on the surface of box enclosures mentioned in any of the preceding claims

Claim 9
A label as mentioned in claims 7 and 8 that has kiss cuts and or other weakened areas indicating tampering
Claim 10
A label as mentioned in claims 7, 8, and 9 that has address postage and or authentication areas or combinations thereof

Claim 11
A label as mentioned in claims 7, 8, 9 and 10 that has electronic means of identification means

Claim 12
A label as mentioned in claims 7, 8, 9, 10 and 11 that has rfid radio means of identification means

Claim 13
A label as mentioned in any of the preceding claims that may be defined as a seal

Claim 14
A box enclosure as mentioned in claim 1 where there are multiple panels and or lids

Claim 15
A box enclosure as mentioned in any of the preceding claims where there is provided retrofit means of operating the invention

Claim 16
A box enclosure as mentioned in any of the preceding claims that is collapsible
Ref ; RB1 application GB1303247.9  Claims

1) A box or enclosure made from any material includes a lid and or panel with aperture or holes that align with aperture or holes in a second panel of the box or enclosure when the said lid or panel is in a closed position the aperture or holes align sufficient to enable a member and or label with at least one portion coated with adhesive to attach and form a seal through the said aperture or holes to the extent that a seal is formed through the said aperture or holes causing the box or enclosure to remain in a closed secure position for as long as the adhesive member and or label remains attached it is not possible to open the box enclosure without first removing the adhesive member and or label.

2) a enclosure or box as described in claim 1 that includes a movable panel and or lid that extends sufficient to hold the box enclosure as a fully formed construction for as long as the said panel and or lid is in position.

3) a enclosure or box as described in claims 1 and 2 that has recessed panels and or lids or combinations thereof.

4) a enclosure or box as described in any of the preceding claims where the panels and or lids form a holding function when engaged in a recessed position.

5) a enclosure or box as described in any of the preceding claims that has panels with lugs and slots that engage in a manner sufficient to hold the said panels in position.

6) a enclosure or box as described in any of the preceding claims that has multiple closure panels and or lids.

7) a enclosure or box as described in any of the preceding claims that has second fixing or holding means such as adhesive or hook and eye or clasp arrangements or combinations thereof.

8) a enclosure or box as described in any of the preceding claims is collapsible.

9) a member and or label with at least one portion coated with adhesive has area sufficient to form a seal through the aperture or holes as described in any of the preceding claims.

10) a member and or label as described in claim 9 where there is sufficient area to provide address and or freight details.

11) a member and or label as described in claims 9 and 10 has tamper evident areas such as weakened areas and or kiss cuts and or nicks or combinations thereof.

12) a member and or label as described in any of the preceding claims that forms a irreversible seal through the aperture or holes but a non permanent adhesion to the enclosure or box as described in any of the preceding claims.

13) a adhesive member and or label as described in any of the preceding claims that affixes and extends over the edge of the box sufficient to make contact to itself through the aperture or holes of the box or enclosure.
14) a adhesive member and or label as described in claim 13 where the said member and or label forms a permanent seal through the aperture or holes as described in any of the preceding claims

15) a adhesive member and or label as described in any of the preceding claims where the adhesive member and or label forms a permanent seal through the said aperture or holes but a non permanent or adhesion to the box or enclosure as described in the preceding claims

16) a member and or label as described in any of the preceding claims having electronic and or radio means of authentication and or identification or combinations thereof

17) a plate or moulding with aperture or holes that may be attached to existing boxes or enclosures to perform the sealing function as described in any of the preceding claims providing a retrofit version of the invention
Application No: GB1303247.9
Claims searched: 1-17

Examiner: Mr Darren Williams
Date of search: 23 July 2013

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

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Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC:

X

Worldwide search of patent documents classified in the following areas of the IPC

B65D

The following online and other databases have been used in the preparation of this search report

EPODOC, WPI

International Classification:

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