

DESCRIPTION

Packaging Device for Anti-counterfeiting of Commodities

5 **Technical Field**

Embodiments of the invention relate to the field of packaging of commodities and in particular to a packaging device for packaging commodities.

Background Art

10 People have paid more and more attention to anti-counterfeiting of commodities, especially high-grade commodities. Many manufacturers simultaneously take multiple anti-counterfeiting measures on their products, for example, using barcodes and laser trademarks, but the products are still constantly counterfeited by others. The reason lies in that it is difficult for shoppers themselves to identify the authenticity of the barcodes and
15 laser trademarks, and some anti-counterfeiting methods adopted by the manufacturers may be technically counterfeited. In addition, the manufacturers cannot discover in real time whether counterfeited products are in circulation on the market, so chances are given to counterfeiters.

20 **Summary**

In order to solve or alleviate at least one aspect of the aforesaid technical problems, the invention is proposed.

According to one aspect of the embodiments of the invention, a packaging device for anti-counterfeiting of a commodity is proposed, the packaging device includes a housing, the housing defines an accommodation space for accommodating the commodity, the
25 housing has an unpackaging part, and the unpackaging part is adapted to be destroyed so as to take the commodity out from the accommodation space, wherein the housing is provided on its outer surface with a lottery ticket part, a valid area of the lottery ticket part covers at least a portion of the unpackaging part, and the valid area is adapted to be destroyed based
30 on the destruction of the unpackaging part.

Optionally, the valid area includes at least one of a scratching area, a lottery ticket barcode area, and a prize-claiming barcode area of the lottery ticket part.

Optionally, the packaging device further includes a readable chip containing commodity information arranged in the housing, the readable chip is sheet-shaped or strip-shaped and covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the readable chip is adapted to be destroyed based on the destruction of the unpackaging part.

Optionally, the readable chip is arranged opposite to the position of the valid area.

According to the other aspect of the embodiments of the invention, a packaging device for anti-counterfeiting of a commodity is proposed, the packaging device includes a housing, the housing defines an accommodation space for accommodating the commodity, the housing has an unpackaging part, the unpackaging part is adapted to be destroyed so as to take the commodity out from the accommodation space, wherein the housing is provided on its outer surface with a lottery ticket part, and the lottery ticket part is provided with a valid area; and the housing further has a covering part, and the covering part covers the valid area in a disposable manner and covers at least a portion of the unpackaging part.

Optionally, the covering part covers the entire unpackaging part.

Optionally, the covering part is an edge portion of the housing.

Optionally, the valid area covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the valid area is adapted to be destroyed based on the destruction of the unpackaging part.

Optionally, the valid area includes a prize-claiming barcode area, and the covering part covers the prize-claiming barcode area; or the valid area includes a prize-claiming barcode area and a lottery ticket barcode area, and the covering part covers the prize-claiming barcode area and the lottery ticket barcode area; or the valid area includes a lottery ticket barcode area, and the covering part covers the lottery ticket barcode area.

Optionally, the packaging device further includes a readable chip containing commodity information arranged in the housing, the readable chip is sheet-shaped or strip-shaped and covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the readable chip is adapted to be destroyed based on

the destruction of the unpackaging part.

Optionally, in the aforesaid packaging device, the housing has a base layer and a surface layer covering a base on the outer surface of the base; and the lottery ticket part is a constituent part of the surface layer.

5 Optionally, the unpackaging part includes an unpackaging line, and the unpackaging line is adapted to cracking or breaking based on the relative movement of housing portions on both sides of the unpackaging line.

Optionally, the unpackaging part includes two packaging sheets serving as constituent parts of the housing, the two packaging sheets are stacked on each other, the readable chip is
10 arranged between the two packaging sheets, one end of the readable chip is fixed to one of the two packaging sheets, and the other end of the readable chip is fixed to the other one of the two packaging sheets; or the unpackaging part includes an unpackaging line, the unpackaging line is adapted to cracking or breaking based on the relative movement of housing portions on both sides of the unpackaging line, and the both ends of the readable
15 chip are respectively fixed to relatively movable portions located on the both sides of the unpackaging line. Further, a fracture structure is arranged between the both ends of the readable chip, and the fracture structure is adapted to fracturing or breaking based on the destruction of the unpackaging part.

Based on the aforesaid technical solutions, the valid area of the lottery ticket is
20 associated with the unpackaging part of the packaging device, or the valid area of the lottery ticket is associated with the covering part that covers the unpackaging part of the packaging device, and a real lottery ticket may be used to judge the authenticity of the commodity. In the case that the readable chip is set to be damaged based on the destruction of the unpackaging part, the readable chip may be used to further achieve an anti-counterfeiting
25 function. The anti-counterfeiting functions are conducive to preventing the manufacture and circulation of counterfeited commodities.

In the case that the readable chip is provided, manufacturers also easily understand the marketing information of the commodity, which is also conducive to preventing the manufacture and circulation of the counterfeited commodities.

Brief Description of the Drawings

The descriptions and drawings below may better help understand these and other characteristics and advantages in various embodiments disclosed in the invention, and the same reference signs in the figures always represent the same components, wherein:

5 Fig. 1 is a schematic diagram of a packaging device for anti-counterfeiting of a commodity according to one exemplary embodiment of the invention;

Fig. 2 is a schematic diagram of an RFID chip according to one exemplary embodiment of the utility mode; and

10 Fig. 3 is a schematic diagram of arrangement of an RFID chip according to one exemplary embodiment of the utility mode.

Detailed Description of the Embodiments

The technical solutions of the invention are further illustrated in detail below by the embodiments in combination with the drawings. The illustrations of the implementation
15 modes of the invention with reference to the drawings below are intended to explain the overall invention concept of the invention, and shall not be understood as a limitation to the invention.

Fig. 1 is a schematic diagram of a packaging device for anti-counterfeiting of a commodity according to one exemplary embodiment of the invention. As shown in Fig. 1,
20 the packaging device for anti-counterfeiting of the commodity includes a housing 100, the housing 100 defines an accommodation space for accommodating the commodity, the housing 100 has an unpackaging part (in the example given in Fig. 1, in an exemplary manner, the housing 100 is torn from the ridgeline, the ridgeline may correspond to the unpackaging part, as may be understood, the ridgeline may be subjected to a strength
25 weakening treatment, i.e., the unpackaging part includes an unpackaging line that is adapted to cracking or breaking based on the relative movement of housing portions on both sides of the unpackaging line), and the unpackaging part is adapted to be destroyed so as to take the commodity out from the accommodation space, wherein the housing is provided on its outer surface with a lottery ticket part 1, a valid area of the lottery ticket part covers at least a

portion of the unpackaging part, and the valid area is adapted to be destroyed based on the destruction of the unpackaging part.

The valid area herein includes at least one of a scratching area, a lottery ticket barcode area and a prize-claiming barcode area of the lottery ticket part. In the example shown in Fig. 1, the scratching area covers at least a portion of the unpackaging part.

In the embodiment shown in Fig. 1, the lottery ticket part 1 includes a scratching area, a lottery ticket barcode area and a prize-claiming barcode area. The lottery ticket barcode area may be deemed as identity information of the lottery ticket, and one lottery ticket corresponds to one lottery ticket barcode; the prize-claiming barcode area is used when claiming the prize, and once it is scratched, it means that the prize of the lottery ticket has been claimed, or it is considered that the lottery ticket whose prize-claiming barcode area has been scratched cannot be used for claiming the prize. In the invention, barcodes are used by the lottery ticket, and it should be noted that digital or other recognition manners may be used to recognize the lottery ticket (including prize-claiming recognition). The barcodes in the claims of the invention also contain other manners equivalent to the barcodes for recognizing the lottery ticket, which are all within the scope of protection of the invention.

It should be noted that the unpackaging part is not limited to the ridgeline shown in Fig. 1. For example, in the case that the housing is required to be detached from an end portion, the unpackaging part may be located on an end surface of the housing, and at this time, the unpackaging part may be an unpackaging line arranged on the end surface. For example, by pressing the proximity of the unpackaging part down, a portion of the end surface of the housing may be made to sink to be ruptured from the unpackaging line.

It should be further noted that the unpackaging part is not limited to the ridgeline or the unpackaging line, and the unpackaging part may be also one surface. For example, the end surface of the housing may form the unpackaging part (in other words, the commodity may be taken out from the housing by destroying the end surface of the housing).

The unpackaging parts as stated above are all within the scope of protection of the invention.

In the example given in Fig. 1, the valid area of the lottery ticket covers the unpackaging part, but the invention is not limited thereto. The housing may be provided with a covering part, and the covering part covers the valid area in a disposable manner and covers at least a portion of the unpackaging part. The “disposable manner” herein means
5 that the covering part cannot be restored after being destroyed or removed, and all covering structures that cannot be restored after being destroyed may be applied to the utility mode, and are within the scope of protection of the invention. The covering part covers at least a portion of the unpackaging part, which means that if the unpackaging part is required to be opened or destroyed, it is required to first remove or open the covering part. Since the
10 disposable covering part required to be opened first also covers the valid area of the lottery ticket at the same time, such structure may be also used for anti-counterfeiting of commodities.

The covering part may cover the entire unpackaging part, and may also cover only a portion of the unpackaging part.

15 In addition, in one embodiment, the valid area may cover at least a portion of the unpackaging part or be located in the proximity of the unpackaging part, and the valid area is adapted to be destroyed based on the destruction of the unpackaging part. The “proximity” herein may be understood as that due to a short distance, the valid area will be also destroyed when the unpackaging part is destroyed, and in this case, the “proximity” is
20 formed.

The valid area may include a prize-claiming barcode area, and the covering part covers the prize-claiming barcode area. Or the valid area may include a prize-claiming barcode area and a lottery ticket barcode area, and the covering part covers the prize-claiming barcode area and the lottery ticket barcode area. Or the valid area includes a lottery ticket barcode
25 area, and the covering part covers the lottery ticket barcode area.

In addition, in the embodiment of the invention, the covering part may be an edge portion of the housing. The edge portion herein is, for example, an edge having a planar shape before the housing has a three-dimensional shape defining the accommodation space. More specifically, in the case that the packaging device is formed into an accommodation
30 space with a ridgeline, the edge portion bypassing the ridgeline to cover the adjacent

surfaces may form the covering part; and another example is a housing part defining an end portion of the accommodation space.

As shown in Fig. 1, the packaging device further includes an RFID chip 2 containing commodity information arranged in the housing, the RFID chip 2 is sheet-shaped or strip-shaped and covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the RFID chip 2 is adapted to be destroyed based on the destruction of the unpackaging part. Similarly, the “proximity” herein may be understood as that due to a short distance, the RFID chip will be also destroyed when the unpackaging part is destroyed, and in this case, the “proximity” is formed. In Fig. 1, the RFID chip 2 is arranged in the proximity of the scratching area in the valid area.

In the invention, illustrations are given by taking the RFID chip as an example. It should be noted that any chip that may contain commodity information and may be read electronically is within the scope of protection of the invention.

Although not shown, the RFID chip may be arranged on an inner side of the housing of the packaging device, and is arranged opposite to the position of the valid area.

The RFID chip may also serve the purpose of packaging. The unpackaging part includes two packaging sheets 11 and 12 serving as constituent parts of the housing, the two packaging sheets are stacked on each other, as shown in Fig. 3, the RFID chip 2 is arranged between the two packaging sheets, one end of the RFID chip is fixed to one of the two packaging sheets, and the other end of the RFID chip is fixed to the other one of the two packaging sheets. Or, the unpackaging part includes an unpackaging line, the unpackaging line is adapted to cracking or breaking based on the relative movement of housing portions on both sides of the unpackaging line, and the both ends of the RFID chip are respectively fixed to relatively movable portions located on the both sides of the unpackaging line. In a further embodiment, as shown in Fig. 2, a fracture structure 21 is arranged between the both ends of the RFID chip 2, and the fracture structure is adapted to fracturing or breaking based on the destruction of the unpackaging part.

Based on the aforesaid contents, the invention puts forward the following technical solutions:

1. A packaging device for anti-counterfeiting of a commodity, comprising a housing,

the housing defines an accommodation space for accommodating the commodity, the housing has an unpackaging part, and the unpackaging part is adapted to be destroyed so as to take the commodity out from the accommodation space, wherein:

the housing is provided on its outer surface with a lottery ticket part, a valid area of the
5 lottery ticket part covers at least a portion of the unpackaging part, and the valid area is adapted to be destroyed based on the destruction of the unpackaging part.

2. A packaging device for anti-counterfeiting of a commodity, comprising a housing, the housing defines an accommodation space for accommodating the commodity, the housing has an unpackaging part, and the unpackaging part is adapted to be destroyed so as
10 to take the commodity out from the accommodation space, wherein:

the housing is provided on its outer surface with a lottery ticket part, and the lottery ticket part is provided with a valid area; and

the housing further has a covering part, and the covering part covers the valid area in a disposable manner and covers at least a portion of the unpackaging part.

15 The aforesaid packaging device may further include an RFID chip containing commodity information arranged in the housing, the RFID chip is sheet-shaped or strip-shaped and covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the RFID chip is adapted to be destroyed based on the destruction of the unpackaging part.

20 The unpackaging part may include two packaging sheets serving as constituent parts of the housing, the two packaging sheets are stacked on each other, the RFID chip is arranged between the two packaging sheets, one end of the RFID chip is fixed to one of the two packaging sheets, and the other end of the RFID chip is fixed to the other one of the two packaging sheets; or the unpackaging part may include an unpackaging line, the
25 unpackaging line is adapted to cracking or breaking based on the relative movement of housing portions on both sides of the unpackaging line, and the both ends of the RFID chip are respectively fixed to relatively movable portions located on the both sides of the unpackaging line.

It should be noted that, in the invention, the so-called lottery ticket part is a lottery
30 ticket that may be confirmed, for example, the lottery ticket is approved and issued by a

relevant national institution, and a consumer may confirm the authenticity of the lottery ticket by inquiry.

Although the embodiments of the invention have been shown and described, those of ordinary skill in the art may understand that these embodiments may be changed without
5 departing from the principle and spirit of the invention, and the scope of the invention is defined by the enclosed claims and their equivalents.

Claims

1. A packaging device for anti-counterfeiting of a commodity, comprising a housing, the housing defines an accommodation space for accommodating the commodity, the housing has an unpackaging part, and the unpackaging part is adapted to be destroyed so as to take the commodity out from the accommodation space, wherein:

the housing is provided on its outer surface with a lottery ticket part, a valid area of the lottery ticket part covers at least a portion of the unpackaging part, and the valid area is adapted to be destroyed based on the destruction of the unpackaging part.

2. The packaging device according to claim 1, wherein:

the valid area comprises at least one of a scratching area, a lottery ticket barcode area and a prize-claiming barcode area of the lottery ticket part.

3. The packaging device according to claim 1, wherein:

the packaging device further comprises a readable chip containing commodity information arranged in the housing, the readable chip is sheet-shaped or strip-shaped and covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the readable chip is adapted to be destroyed based on the destruction of the unpackaging part.

4. The packaging device according to claim 3, wherein:

the readable chip is arranged opposite to the position of the valid area.

5. A packaging device for anti-counterfeiting of a commodity, comprising a housing, the housing defines an accommodation space for accommodating the commodity, the housing has an unpackaging part, and the unpackaging part is adapted to be destroyed so as to take the commodity out from the accommodation space, wherein:

the housing is provided on its outer surface with a lottery ticket part, and the lottery ticket part is provided with a valid area; and

the housing further has a covering part, and the covering part covers the valid area in a disposable manner and covers at least a portion of the unpackaging part.

6. The packaging device according to claim 5, wherein:

the covering part covers the entire unpackaging part.

7. The packaging device according to claim 5, wherein:

the covering part is an edge portion of the housing.

8. The packaging device according to claim 5, wherein:

the valid area covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the valid area is adapted to be destroyed based on the
5 destruction of the unpackaging part.

9. The packaging device according to claim 8, wherein:

the valid area comprises a prize-claiming barcode area, and the covering part covers the prize-claiming barcode area; or

the valid area comprises a prize-claiming barcode area and a lottery ticket barcode area,
10 and the covering part covers the prize-claiming barcode area and the lottery ticket barcode area; or

the valid area comprises a lottery ticket barcode area, and the covering part covers the lottery ticket barcode area.

10. The packaging device according to claim 8, wherein:

15 the packaging device further comprises a readable chip containing commodity information arranged in the housing, the readable chip is sheet-shaped or strip-shaped and covers at least a portion of the unpackaging part or is located in the proximity of the unpackaging part, and the readable chip is adapted to be destroyed based on the destruction of the unpackaging part.

20 11. The packaging device according to any of claims 1-10, wherein:

the housing has a base layer and a surface layer covering a base on the outer surface of the base; and

the lottery ticket part is a constituent part of the surface layer.

12. The packaging device according to any of claims 1-10, wherein:

25 the unpackaging part comprises an unpackaging line, and the unpackaging line is adapted to cracking or breaking based on the relative movement of housing portions on both sides of the unpackaging line.

13. The packaging device according to claim 3 or 10, wherein:

30 the unpackaging part comprises two packaging sheets serving as constituent parts of the housing, the two packaging sheets are stacked on each other, the readable chip is arranged

between the two packaging sheets, one end of the readable chip is fixed to one of the two packaging sheets, and the other end of the readable chip is fixed to the other one of the two packaging sheets; or

the unpackaging part comprises an unpackaging line, the unpackaging line is adapted to
5 cracking or breaking based on the relative movement of housing portions on both sides of the unpackaging line, and the both ends of the readable chip are respectively fixed to relatively movable portions located on the both sides of the unpackaging line.

14. The packaging device according to claim 13, wherein:

a fracture structure is arranged between the both ends of the readable chip, and the
10 fracture structure is adapted to fracturing or breaking based on the destruction of the unpackaging part.