The present invention disclosed a hanging disposable gloves cartridge, which includes a plurality of disposable gloves alignedly overlapped with each other to form a glove stack, wherein each of the disposable gloves has a perforated tear line transversely spanned thereon for separate a hand portion from a waist portion; a clamp holder, which includes a pair of mounting wings for substantially sandwiching the glove stack there between at a position above the tear lines of the disposable gloves, wherein each of the disposable gloves are made of two layers of film forming a hand cavity therebetween, a human hand is able to insert into the hand cavity to shell off an outermost dispose glove from the cartridge.
DISPOSABLE GLOVE CARTRIDGE

BACKGROUND OF THE PRESENT INVENTION

[0001] 1. Field of Invention

The present invention relates to disposable gloves, and more particularly, relates to a disposable glove cartridge, which enables a user easily and quickly retrieve individual glove from the cartridge with a handy and convenient manner.

[0002] 2. Description of Related Arts

Nowadays, people living in the civilized world have been changed to be more and more environment and health concerned. Unsurprisingly, hygiene enforcement equipments, such as disposable gloves, became mandatory means in many occasions for accustoming a clean or sterile environment. Needless to say, there would be enormous requirements for disposal gloves in medical industry and food industry. This is due to the fact that the disposable gloves are capable of minimizing the spread of viruses and other contaminants among individuals. The likelihood of the dirty means transmission between personnel’s hands and foods to be served will be significantly reduced.

Moreover, the food handlers are required to frequently replace the gloves under certain circumstances. For instance, in foodservice industry, a food-dispatching employee would have to handle a variety of items at the same time, wherein different items are probably not permitted to contact with each other. As a result, the food service personnel are willing to wear an easily replaceable glove from time to time. That is to say, every time he touched one item of the food, he would discard the used or contaminated glove immediately, and then don another new glove in a prompted manner to touch another item.

To satisfy such special requirements in the food industry and medical industry, many types of cheaper and reliable thermoplastic disposable gloves have been introduced into the market. The disposable gloves are interposed together with an overlapped manner to form a multi-layer structure. As a result, the food service personnel are able to frequently replace the gloves by carrying on such multi-layer disposable gloves.

Commonly, such multi-layer gloves could be sold in a dispenser having a slot defined thereon, and the user are able to retrieve the gloves from the slot of the dispenser one by one in routine application. In other words, such kind of disposable glove is just defined like a paper tissue removed from a tissue dispenser.

Unfortunately, the disposable gloves are different with the tissue paper in physical properties and functional characteristics. The disposable gloves are made of plastic materials and prepared to have an opening for insertion into a human hand. When the gloves are removed from the dispenser, the thermoplastic gloves are susceptible to be creased or deformed in shape. It would be troublesome for food service personnel to straighten out the plastic gloves first and then figure out where is the opening to insert his hand. In other words, the disposable gloves retrieved from such gloves dispenser would be difficult to be instantly serviceable.

What is more, since the food service personnel always change the gloves under a flurry time-saving circumstance. Inadvertent removal of more than one glove would be inevitable thus causing unnecessary wastes of such disposable gloves. It is desirable to develop an improved disposable gloves dispensing arrangement for overcoming above-mentioned problems of the conventional disposable gloves.

SUMMARY OF THE PRESENT INVENTION

A primary object of the present invention is to provide a disposable glove cartridge, which is easily carried by a user for ensuring a reliable and efficient glove dispensing procedure.

Another object of the present invention is to provide a disposable glove cartridge, wherein a human hand could be easily and quickly inserted into each individual glove so as to release the disposable glove from the cartridge, as a result, a user is able to simultaneously retrieve the glove and insert his hand into the glove for achieving a timesaving serviceable purpose.

Another object of the present invention is to provide a disposable glove cartridge, wherein no complicated enclosure or dispenser would be required for supporting the glove cartridge in position; that is to say, the disposable glove cartridge is capable of being carried by the user in a handy manner or detachably attached to a nearby object.

Another object of the present invention is to provide a disposable glove cartridge having a plurality of disposable gloves, wherein frequent and regular retrieval of a new glove would not affect the reuse function of the glove cartridge; in other words, the glove cartridge would be maintain a ready-to-use condition after a repetitious removal of the disposable gloves, the outermost glove of the disposable glove cartridge is always ready to be serviceable.

Another object of the present invention is to provide a disposable glove cartridge, wherein each glove of the cartridge could be removed safely and efficiently, that is to say, whenever a user is willing to retrieve a glove, there is no possibility that more than one gloves shelled off from the cartridge at the same time.

Accordingly, to achieve above mentioned objects, the present invention provides a hanging disposable gloves cartridge, comprising:

a plurality of disposable gloves alignedly overlapped with each other to form a glove stack, wherein each of the disposable gloves has a transverse perforated tear line spanned thereon for dividing the disposable glove into a waist portion and a hand portion; and

a clamp holder, which comprises a pair of mounting wings for substantially sandwiching the glove stack therebetween at a position above the tear lines of the disposable gloves, and means for attaching the clamp holder to an object so as to enable the disposable gloves supported by the object with an individually suspended manner;

wherein each of the hand portions has a first layer bordered the perforated tear line and a second layer having a peripheral edge seamed with the first layer so as to form a hand cavity between the first layer and the second layer for receiving a human hand, and automatically leave an elon-
gated opening adjacent to the perforated tear line for permitting the human hand slipped into the hand cavity to peel off the hand portion of an outermost disposable glove of the glove stack from the cartridge.

[0019] These and other objectives, features, and advantages of the present invention will become apparent from the following detailed description, the accompanying drawings, and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] FIG. 1 is a perspective view of a hanging disposable glove cartridge according to a preferred embodiment of the present invention.

[0021] FIG. 2 is a perspective view of the disposable glove cartridge according to above preferred embodiment of the present invention showing an outermost glove is torn off from the cartridge by a human hand.

[0022] FIG. 3 is a perspective view of the disposable glove cartridge according to the preferred embodiment showing an alternative mode of the clamping holder for suspendedly supporting the disposable gloves in position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0023] Referring to the FIG. 1 to FIG. 3, a hanging disposable glove cartridge according to a preferred embodiment of the present invention is illustrated. The hanging disposable glove cartridge 1 comprises a plurality of disposable gloves 10 alignedly overlapped with each other to form a glove stack 101, wherein each of the disposable gloves 10 has a transverse perforated tear line 110 for dividing the disposable glove 10 into a waist portion 11 and a hand portion 12.

[0024] That is to say, the hand portion 12 is integrally extended from the waist portion 11 to conform a human hand shape. Furthermore, the disposable glove cartridge 1 comprises a clamp holder 20, which comprises a pair of mounting wings 21 for substantially sandwiching the glove stack 101 therebetween at a position above the tear line 110 of the disposable gloves, and means 22 for attaching the clamp holder 20 to an object so as to enable the disposable gloves 10 attached onto the object with an individually suspended manner. Here, the mounting wings 21 are respectively provided at either side of the glove stack 101 for retaining the plurality of waist portions 11 in position so as to suspend the glove stack 101 as shown in FIG. 2.

[0025] What is more, each of the hand portions 12 has a first layer 121 bordered with the perforated tear line 110 and a second layer 122 having a peripheral edge 123 seamed with the first layer 121 along an human hand shape so as to form a hand cavity 30 between the first layer 121 and the second layer 122 for receiving a human hand and automatically define an elongated opening 31 adjacent to the tear line 110 for allowing the human hand slipped into the hand cavity 30 to peel off the hand portion 12 of an outermost dispose glove 10 from the cartridge 1.

[0026] Preferably, the glove stack 101 of the disposable gloves cartridge 1 is prepared by generally overlaying a plurality of identical disposable gloves 10. In the present invention, the disposable gloves 10 are made of low cost thermoplastic materials, such as Polypropylene or polyethylene. This is due to the fact that such thermoplastic materials are of pliable property to be easily deformed for facilitating a better maneuverability and manageability. And more importantly, such plastic materials are inert to a wide range of chemicals and adapted to be applied over a remarkable scope of temperatures. It is noted that the thermoplastic materials is selected from a group consisting of polypropylene, polybutylene, polyamides, ethylene-vinyl-acetate copolymer, polyvinyl chloride, polyvinylidene chloride, and so on.

[0027] The perforated tear line 110 is purposely arranged onto each individual disposable glove 10 for dividing the disposable glove 10 into a waist portion 11 and a hand portion 12, wherein the waist portion 11 could be superposed with other waist portions 11 and be reinforced or strengthened by two mounting wings 21 of the clamp holder 20 to form a rigid hanging holder with respect to the downwardly suspended pliable hand portions 12. Preferably, the perforated tear line 110 is arranged at a position adjacent to the lower edges of the mounting wings 21. It is noted that the perforated tear line 110 could be applied as a grooved weaken line for easier manufacture in case of the glove material is thick.

[0028] According to the preferred embodiment of the present invention, the clamp holder 20 is a rigid plastic strap bisectinally folded to generate a pair of symmetrical mounting wings 21 respectively wrapped up onto both sides of the glove stack 101 for retaining the waist portions 11 of the glove stack 101 in position. On the other hand, the waist portions 11 of the plurality of disposable gloves 10 are be reinforced or stiffened by thematically fusing the waist portions 11 into an integrated holding part 102 while the hand portions 12 of all disposable gloves 10 are downwardly suspended thereof, wherein the tear line 110 are markedly exposed from the integrated holding part 102 for gradually and subsequently peeling off the outermost disposable glove 10 in convenience. In other words, the waist portions 11 of the glove stack 101 could be formed as a rigid strap for supporting the dangling gloves in purposes.

[0029] In other words, the clamp holder 20 enable the waist portions 11 and the hand portions 12 stand in sharp contrast, wherein the stiffened waist portions 11 are retained and reinforced by the mounting wings 21 of the clamp holder 20, whereas the hand portions 12 of the disposable gloves 10 are extended from the clamp holder 20 with a suspended manner.

[0030] Furthermore, the clamp holder 20 has means 22 for detachably attaching such clamp holder 20 onto an ambient object, such as a hook, a belt, a rod, and so on. In the preferred embodiment, the attaching means 22 are two through holes penetrating the mounting wings 21 at an upper position, as shown in FIG. 1 and FIG. 2. As a result, the user is able to freely hang the clamp holder 20 at his or her belt, a wall hook, or any other nearby objects. By the way, the attaching means 22 could be embodied as snaps, buttons, screws, Velcro fastener, as well as zippers for detachably attaching the clamp holder onto nearby objects. Preferably, the hanging disposable glove cartridge 1 of the present invention is supposed to detachably attached onto the user’ belt, such that a user could carry such glove cartridge on his two sides during operating procedure.
As shown in FIG. 2, each of the hand portions 12 has a first layer 121 bordered with the perforated tear line 110 and a second layer 122 having a peripheral edge 123 seamed with the first layer 121. In other words, each of the hand portions 122 is formed of two layers of thermoplastic film, namely the first layer 121 and the second layer 122, which are seamlessly sealed along the peripheral edge. Here, the first layer 121 and the second layer 122 could be shaped to form a human hand shape, such as a five-finger glove or a thumb/multi-finger mitten. Since the second layer 122 is welded onto the first layer 121 along the human hand shape peripheral edge, the elongated opening 31 would be automatically formed transversely spanning on two lateral edges of the hand portion 12. Since the disposable glove cartridge 1 of the present invention is detachably attached to a nearby object, the glove stack 101 would be supported in a suspended manner. As a result, the elongated opening 31 would be upwardly oriented, such that a user is able to quickly and easily slip his or her hand into such elongated opening 31 without further effort. What is more, the weight of the second layer 122 would more or less downwardly deform the elongated opening 31 for facilitating such hand-insertion movement.

Moreover, it is noted that the thermoplastic first layer 121 and second layer 122 provide excellent touch sensitivity and seamlessly sealed intact for providing a waterproof function. Accordingly, hand portion 12 is grease and oil resistant, and impervious to water based solutions.

In short, a primary goal of the present invention is to provide a hanging disposable glove cartridge 1, such that a user is able to conveniently carry such cartridge to constantly and subsequently retrieve new gloves in a handy manner. For example, the glove cartridge 1 could be attached onto the user’s utility belt at a position adjacent to user’s hand, such that the user is able to naturally extend his or her hand into each individual glove without any intended maneuver. And more importantly, the elongated opening 31 would ensure the human hand slip into the hand cavity without any undesirable hassles. That is to say, the elongated opening 31 would substantially reduce the likelihood of two layers 121, 122 stick together.

Alternatively, the clamp holder 20 could be applied as a clipper 20’ having two mounting wings 21’ directly clamping the glove stack 101 in position as shown in FIG. 3. As a result, the clamp holder 20 would have a degree of rigidity significantly greater than the disposable gloves 10 and extend across the wrist portion 12 of the outermost one of the glove stack 101 for sandwiching the glove stack 101 in position. It is worth to mention that the clipper 20’ is engaged onto the wrist portion 11 well above the tear line 110. Therefore, the clamp holder 20 could be embodied as conventional clippers made of wood, rigid plastics as well as metals. Such clippers could be shifted between an open position and a close position.

When the clipper 20’ is folded into the open position, the plurality of disposable gloves 10 are stacked with an aligned manner to form the glove stack 101 for a quick operation. Since each disposable glove 10 includes a perforated tear line 110 across the glove for dividing the disposable glove 10 into the wrist portion 11 and the hand portion 12. Afterwards, the wrist portions 12 of the glove stack is disposed between two mounting wings 21’ of the clipper 20’.

On the other hand, in the closed position, the pair of mounting wings 21’ is inwardly folded for clamping the glove stacks 101 as shown in FIG. 4. Commonly, each of the mounting wings 21 has a straight edge, which is purposely positioned adjacent to the tear line 110 with a parallel manner. It is noted that such clipper 20 further comprises a click-on element 22 integrally from the clipper 20 for assisting the clipper 20’ detachably attached onto user’s belt as shown in FIG. 3.

One skilled in the art will understand that the embodiment of the present invention as shown in the drawings and described above is exemplary only and not intended to be limiting.

It will thus be seen that the objects of the present invention have been fully and effectively accomplished. It embodiments have been shown and described for the purposes of illustrating the functional and structural principles of the present invention and is subject to change without departure form such principles. Therefore, this invention includes all modifications encompassed within the spirit and scope of the following claims.

What is claimed is:

1. A hanging disposable glove cartridge, comprising:

   a plurality of disposable gloves alignedly overlapped with each other to form a glove stack, wherein each of said disposable gloves has a transverse perforated tear line spanned thereon for dividing said disposable glove into a waist portion and a hand portion; and

   a clamp holder, which comprises a pair of mounting wings for substantially sandwiching said glove stack therebetween at a position above said tear lines of said disposable gloves, and means for attaching said clamp holder to an object so as to enable said disposable gloves attached onto said object with an individually suspended manner;

   wherein each of said hand portions has a first layer bordered said perforated tear line and a second layer having a peripheral edge seamed with said first layer so as to form a hand cavity between said first layer and said second layer for receiving a human hand, and automatically leave an elongated opening adjacent to said perforated tear line for permitting said human hand slipped into said hand cavity to peel off said hand portion of an outermost disposable glove of said glove stack from said cartridge.

2. The glove cartridge, as recited in claim 1, wherein said disposable gloves are made of thermoplastic materials selected from a group consisting of polypropylene, polybutylene, polyamides, ethylene/vinyl-acetate copolymer, polyvinyl chloride, polyvinylidene chloride, and so on for ensuring said disposable gloves with a pliable property.

3. The glove cartridge, as recited in claim 1, wherein said waist portions of said disposable gloves are superposed together and reinforced by said two mounting wings, each of said mounting wings has a lower edge positioned adjacent to said tear line.

4. The glove cartridge, as recited in claim 2, wherein said waist portions of said disposable gloves are superposed together and reinforced by said two mounting wings, each of said mounting wings has a lower edge positioned adjacent to said tear line.
5. The glove cartridge, as recited in claim 1, wherein said clamp holder is a rigid plastic strap bisectionally folded to generate a pair of symmetrical said mounting wings respectively wrapped up onto either side of said glove stack for retaining said waist portions of said glove stack 101 in position.

6. The glove cartridge, as recited in claim 4, wherein said clamp holder is a rigid plastic strap bisectionally folded to generate a pair of symmetrical said mounting wings respectively wrapped up onto either side of said glove stack for retaining said waist portions of said glove stack 101 in position.

7. The glove cartridge, as recited in claim 1, wherein said waist portions of said plurality of disposable gloves are stiffened by thermally fusing said waist portions into an integrated holding part while said hand portions of said disposable gloves are downwardly suspended thereof, wherein said tear lines are markedly exposed from said integrated holding part for gradually and subsequently peeling off said outermost disposable glove in convenience.

8. The glove cartridge, as recited in claim 5, wherein said waist portions of said plurality of disposable gloves are stiffened by thermally fusing said waist portions into an integrated holding part while said hand portions of said disposable gloves are downwardly suspended thereof, wherein said tear lines are markedly exposed from said integrated holding part for gradually and subsequently peeling off said outermost disposable glove in convenience.

9. The glove cartridge, as recited in claim 6, wherein said waist portions of said plurality of disposable gloves are stiffened by thermally fusing said waist portions into an integrated holding part while said hand portions of said disposable gloves are downwardly suspended thereof, wherein said tear lines are markedly exposed from said integrated holding part for gradually and subsequently peeling off said outermost disposable glove in convenience.

10. The glove cartridge, as recited in claim 1, wherein said first layer and said second layer of said hand portion are human-hand shaped to form a five-finger glove.

11. The glove cartridge, as recited in claim 8, wherein said first layer and said second layer of said hand portion are human-hand shaped to form a five-finger glove.

12. The glove cartridge, as recited in claim 1, wherein said first layer and said second layer of said hand portion are human-hand shaped to form a thumb/multi-finger mitten.

13. The glove cartridge, as recited in claim 8, wherein said first layer and said second layer of said hand portion are human-hand shaped to form a thumb/multi-finger mitten.

14. The glove cartridge, as recited in claim 1, wherein said elongated opening is upwardly orientated and easily deformed for facilitating a hand-insertion action.

15. The glove cartridge, as recited in claim 10, wherein said elongated opening is upwardly orientated and easily deformed for facilitating a hand-insertion action.

16. The glove cartridge, as recited in claim 13, wherein said elongated opening is upwardly orientated and easily deformed for facilitating a hand-insertion action.

17. The glove cartridge, as recited in claim 1, wherein said clamp holder is a clipper for shifting said two mounting wings between an opening position and a closing position, wherein at said opening position, said disposable gloves are stacked with an aligned manner to form said glove stack to be disposed between two said two mounting wings, and at said closing position, said two mounting wings are inwardly folded for clamping said glove stacks.

18. The glove cartridge, as recited in claim 6, wherein said clamp holder is a clipper for shifting said two mounting wings between an opening position and a closing position, wherein at said opening position, said disposable gloves are stacked with an aligned manner to form said glove stack to be disposed between two said two mounting wings, and at said closing position, said two mounting wings are inwardly folded for clamping said glove stacks.

19. The glove cartridge, as recited in claim 9, wherein said clamp holder is a clipper for shifting said two mounting wings between an opening position and a closing position, wherein at said opening position, said disposable gloves are stacked with an aligned manner to form said glove stack to be disposed between two said two mounting wings, and at said closing position, said two mounting wings are inwardly folded for clamping said glove stacks.

20. The glove cartridge, as recited in claim 16, wherein said clamp holder is a clipper for shifting said two mounting wings between an opening position and a closing position, wherein at said opening position, said disposable gloves are stacked with an aligned manner to form said glove stack to be disposed between two said two mounting wings, and at said closing position, said two mounting wings are inwardly folded for clamping said glove stacks.