Multi-function interlocking pocket system (m-i-pocket)

BRIEF SUMMARY OF INVENTION

This description summarizes the basic perspectives of the invention, m-i-pockets. This description summary is not an extensive overview of the m-i-pockets. It does not intend to delineate the scope of the invention. In the summary, some ideas of the invention are described as a prelude to more details that are presented later.

There is a high demand of multi-functional pockets on the market due to an increasing variety of lifestyles. Consumers now are carrying more items than before, and m-i-pockets cater to these needs. In order to fit different needs and lifestyles, m-i-pockets can be removed from host garments, and transformed into bags and attach to different hosts.

A m-i-pocket consists of least one front and back panel attached together along the adjacent sides and bottom marginal edges, with the top edges unattached, to form one or more compartments. The m-i-pocket can be interlocked internally or externally, with hosts including but not limited to clothes, apparels, garments, bags, luggage, vehicles, interior spaces, exterior spaces etc. It can also be attached and detached to other m-i-pocket(s) or hosts in many ways including but not limited to vertical, horizontal, front, back, top, bottom, sides, various directions and angles etc, using various fasteners or different types of mesh. M-i-pockets can also be interlocked in any location of the hosts, for example inside pocket opening(s) of the host garments.

The m-i-pocket can store a wide range of items including but not limited to; belongings, valuables, files/notes, necessities, electronics, utensils, tools, travel essentials, corporate items, industrial items, specialty items, work items, professional items, or any objects that fits etc.

A m-i-pocket not only functions as storage devices, but also can be used as a water pouch, air pillow, float, water pouch, hot/cold pack, document folder, charging station, anti-theft pocket, medical pocket, specialty pocket, document file, sports functions etc.

More particularly, a m-i-pocket can be used independently, interlock with a host, or interlock with other m-i-pockets to transform into bags, including but not limited to drawstring bags, shoulder bags, handbags, shoulder bag, sling bags, backpacks etc. It may come with detachable and adjustable strap(s). It may also have multiple compartments and can/may be used inside out.

Other features of m-i-pocket(s) include washable, discreet, and they may or may not be hidden from view on the outer appearance of the hosts. They may be collapsible into a compact size, and able to hang on different surfaces and locations. When multiple m-i-pockets are interlocked front and back, the set of m-i-pockets can be flipped like pages of a book. This function is especially useful in luggage, bags, document files and the like.

Lastly, the materials used in m-i-pockets are composed of a wide range of natural to artificial origins. M-i-pockets may comprise of various shapes, sizes, colours, print, materials, thickness, layers. M-i-pockets may be used indoors and outdoors for in industries such as fashion, garment/textile, home improvement, corporates, industrials, healthcare, travel, automobile and many others.

FIELD OF THE INVENTION

The objective of the present invention is to introduce method of design and fabrication of m-i-pockets with multiple functions and interlocking capacities. The present invention relates particularly to the field of storage devices and garments/textiles.

BACKGROUND OF THE INVENTION

Purchasing clothes, garments or apparels that have practical functions on the market usually limits the consumers' choices. Technical clothing with multi-functions pockets are often externally visible, resulting in a bulky, non-stylish appearance. Those pockets are also often not easily washable, changeable, customisable, transformable, or interlockable. These garments do not provide style, convenience and personalised demand that the modern consumers need.

As a result of the lack of multi-functional pockets on the market, items may not be stored properly. Items may fall out and get lost, stolen, dirty, broken, causing financial losses. Garments aside, items may also be disorganised in vehicles, indoors and outdoors, resulting in clutter and unsanitary environments.

With m-i-pockets, these problems can be solved. M-i-pockets can be used both indoors and outdoors. Applications include but not limited to garments, apparels, homes, businesses, vehicle cabins, document files, , luggage, bags, outdoors activities, traveling, camping, etc. It can easily be part of the hosts to keep things sorted and secured, but also detachable and convertible into separate bags for multifunction use.

This invention discloses the design of m-i-pockets that meet people's needs. Different from all prior art of detachable pockets, m-i-pockets have many functions and flexibilities without sacrificing style, quality and convenience.

Prior art in the field of attachable products does not solve all of the aforementioned problems. For example:

Pat. No. US20160066637A1, titled 'Garment having detachable pocket', disclosed a type of garment with pockets, which do not account for flexibility of usage. A m-i-pocket is different from the mentioned invention in 3 aspects:

(1) it is able to transform into bags for further use and flexibility;
(2) it is able to interlock with all types of hosts, the invention in Pat. No. US10342310B1, titeld 'Handbag organizer insert' is only able to fit into a few certain types;
(3) it is able to have many more functions like charging station, air pillow, water pouch etc, while the invention in Pat. No. US20160066637A1 has limited functions.

Pat. No. US20180206566A1, titled 'Attachable Interactive Pocket for Electronic Devices', disclosed a type of pockets, which do not account for the necessary convenience needed to store, secure, access and organise personal items. A m-i-pocket is different from the mentioned invention in three aspects:

(1) it is not just limited to storing electronics and the like. Instead, it can store and organise a wide range of items;
(2) it is convertible into independent bags which also have multiple storage purposes;

(3) it is interlockable with other m-i-pockets.

Pat. No. CA2755685A1, titled ‘A multipurpose pocket for use with aprons and belts employed for utility purposes’, disclosed a type of pockets. The invention does not cover the versatile functions as a m-i-pocket. A m-i-pocket is different from the above mentioned invention in 3 aspects:
(1) it is interlockable to itself and other m-i-pockets;
(2) it can be used for other purposes, not just limited to utility purposes;
(3) it can also be attached to not just garments, but hosts like bags, vehicles, interiors, exteriors and a wide range of other places as well.

Presently, there is no solution for adding multifunction interlocking pockets onto the interior or exterior surface of various hosts. Particularly, there is no solution for pockets that incorporates interlocking pockets for customisable use. More particularly, there is no solution for transforming interlocking pockets into bags, backpacks, handbags, drawstring bags or other like items. The present invention addresses these unmet needs.

BRIEF DESCRIPTION OF THE M-I-POCKETS DRAWINGS:

The invention is illustrated in the following figures.

FIG. 1 illustrates an example embodiment of the external frontal view of a host garment, skirt .

FIG. 2 illustrates the interior of the host skirt skirt in FIG. 1 with half of fasteners 6 attached to connectors 3 to be able to interlock m-i-pockets. Host garment skirt/dress may or may not have connectors 3 and may or may not have connectors 3 on either side of the garment. Half of fastener 6 may be attached directly onto host garment skirt/dress.

FIG. 3 is an application illustration depicting an example embodiment of the frontal view of the m-i-pockets with functional compartment details 10 used inside host garment skirt/dress in FIG.1. M-i-pockets may be attached internally or externally.

FIG. 4 illustrates the side view of FIG. 3.

FIG. 5a is an application illustration depicting an example embodiment of the inside frontal view of a host garment , pants with m-i-pockets with functional compartments details 10.

FIG. 5b illustrates the side view of FIG. 5a.

FIG. 6a illustrates an example embodiment of the interior frontal view of the host garment pants with connector 3 and half of fastener 6 and locations of the garment pants openings with openings 2. Host garment pants may or may not have connectors 3 and may or may not have connectors 3 on either side of the garment. Half of fastener 6 may be attached directly onto host garment pants .

FIG. 6b illustrates the side view of FIG. 6a.

FIG. 7a illustrates an example embodiment of the front view of a m-i-pocket with compartment details 10, half of fastener(s) 6 and fastener(s) 8.

FIG. 7b illustrates an example embodiment of the m-i-pocket folded and non-permanently interlocked together with itself with the two halves of fastener(s) 6.

FIG. 8 illustrates strap 9 non-permanently attaches to fastener(s) 8, transforming m-i-pocket into a m-i-pocket handbag. .

FIG. 9a illustrates an example embodiment of more than one m-i-pockets which are non-permanently interlocked. IG. 9b illustrates an example embodiment of the back view of FIG. 9a.

FIG. 10a illustrates an example embodiment of a m-i-pocket with an example of functional compartmental details 10 and hole(s) 16 at the bottom corners.

FIG. 10b illustrates an example embodiment of the m-i-pocket in FIG. 10a in the process of being flipped inside out, revealing another compartment 15b inside.

FIG. 10c illustrates an example process of the m-i-pocket in FIG. 10a being collapsed and folded inside out from an example compartment 15a in FIG10b. Compartment 15a may or may not have various fasteners on its opening.

FIG. 10d illustrates an example embodiment of the m-i-pocket in FIG. 10a which is collapsed and folded into a compact size.

FIG. 11a illustrates an example embodiment of the m-i-pocket in FIG. 10a which, depending on consumer's preference, is completely flipped inside out , wherein the outer compartments are now inside, and the inside compartment is usable outside. Strap 9 is looped through loop 11. Hole(s) 16 is at the bottom corners of the inside out m-i-pocket.

FIG. 11b illustrates an example embodiment of a drawstring bag which is transformed from the m-i-pocket bag in FIG 11a with straps 9 being looped at 11,drawn out and non-permanently attached to holes 16 at the bottom edge or corners. Depending on consumer's preference strap 9 may also not be needed to attach at holes 16.

FIG. 11c illustrates an example of a m-i-pocket without being flipped inside out but still able to loop strap 9 through loop 11 and transform it into a drawstring bag. It has example of compartment details 10 and fasteners 8 at the corners. Depending on consumer's preference strap 9 may also not be needed to attach at fasteners 8. Loop 11 may be located a distance away from or right at main compartment opening of m-i-pocket. FIG. 12a illustrates an application drawing depicting an example embodiment of the front of a host garment jacket with m-i-pockets non-permanently attached inside. M-i-pockets may be on either side or both sides, inside or outside of the host garment jacket . One side of the jacket is not depicted with m-i-pockets in this figure to show example locations of garment openings 2 for easy reference.

FIG. 12b illustrates the back view of FIG. 12a. The top m-i-pocket is not depicted with comartment details 10 whereby the bottom m-i-pocket is depicted with example compartment details 10 for reference purposes.

FIG. 15c illustrates the side view of FIG. 12a and 12b without compartment details 10.

FIG. 13 illustrates the extra side panels of the m-i-pocket for use in host garment jacket(s) in FIG. 12c, 14c.

FIG. 14a illustrates an example embodiment of a host garment jacket non-permenantly attached with m-i-pockets at the inside and bottom half of the garment. inside. M-i-pockets may be on either side or both sides, inside or outside of the host garment jacket. One side of the jacket is not depicted with m-i-pockets in this figure to show example locations of garment openings 2 for easy reference.

FIG. 14b illustrates the back view of FIG. 14a, an application drawing depicting an example embodiment of the host garment jacket with only a m-i-pocket on the lower half portion. The connector 3 in FIGs 14a, 14b and 14c are used to support the m-i-pocket and interlock to the host garment jacket.

FIG. 14c illustrates the side view of the host garment jacket in FIGs 14a and 14b with the example locations of the connectors 3.

FIG. 15 illustrates an example embodiment of the section view of a basic m-i-pocket with front and back panels and half of fasteners 6 attached to the top and bottom edges.

FIG. 16 illustrates an example embodiment of the section view of a m-i-pocket that is inflatable with fasteners attached to the top and bottom edges.

FIG. 17 illustrates an example embodiment of the section view of a m-i-pocket that has inside out function with a fastener 6 attached on the interior bottom edge as well as fasteners attached to the exterior top and bottom edges.

FIG. 18a is an application illustration depicting an example embodiment of multiple m-i-pockets interlocked in a host backpack.

FIG. 18b illustrates a bag which is transformed from the m-i-pockets detached from the host backpack in FIG. 18a. The detached m-i-pocket can also be interlocked on the outside of host backpack in FIG.18a.

FIG. 18c is an application illustration depicting an example embodiment of a m-i-pocket which is interlocked in host bag using fasteners 5 without the use of a connector 3. There may or may not be a connector 3 in the actual host bags depending on the sizes, shapes, materials, layers and styles of the bags. M-i-pocket may be interlocked to either side or sides of host bags in either single or more than one quantities.

FIG. 19a is an application illustration depicting an example embodiment of the m-i-pockets interlocked non-permenantly to a host lugagge. The m-i-pockets are interlocked to the top half of the lugagge with a top and bottom interlocking method, while to the bottom half of the lugagge with a front and back interlocking method, allowing m-i-pockets to be flipped like a pages of book. M-i-pockets may non-permenantly interlock to host lugagge with either or both methods.

FIG. 19b is an application illustration depicting an example embodiment of the m-i-pockets interlocked non-permenantly to in a host lugagge. The m-i-pockets are non-permantly interlocked to the top half of the lugagge with a top and bottom interlocking method, while the bottom half of the lugagge depicts m-i-pocket non-permaantly interlocked in a free rotate method. M-i-pockets may non-permenantly interlock to host lugagge with either or both methods.

FIG. 19c illustrates an example embodiment of the section view of non-permanent interlocking used in FIG 19a and 19b with the use of connector 28h.

FIG. 20 illustrates an example embodiment of a m-i-pocket wherein half of fastener 6 is on one side of the m-i-pocket. Half of fastener 6 may be located on any side of the m-i-pocket.

FIG. 21illustrates an example embodiment of a m-i-pocket wherein of fastener 6 is on more than one side or all sides of the m-i-pocket in order to attach other m-i-pockets.

FIGs. 22 and 23 illustrate example embodiments of m-i-pockets in different shapes.

FIG. 24 illustrates an example embodiment of a m-i-pocket with holes 16 on the corners for interlocking purposes.

FIG. 25 illustrates an example embodiment of a mesh used as a m-i-pocket compartment or panel that enables interlocking in many flexible ways possible.

FIG. 26 illustrates an example embodiment of four m-i-pockets in FIG. 24 interlocked together with fasteners on the corners. The m-i-pockets depicted may be interlocked vertially and horizontally in any numbers.

FIG. 27 illustrates an example embodiment of four m-i-pockets in FIG. 21 interlocked together with fasteners on edges 5. The m-i-pockets depicted may be interlocked vertially and horizontally in any numbers.

FIG. 28 illustrates an example embodiment of m-i-pockets in certain shapes to interlock into a hood in FIG.29. The m-i-pockets mayalso be inflatable and have compartment(s).

FIG. 29 illustrates a hood that is formed by non-permenantly interlocking a m-i-pocket in FIG.28.

FIG. 30 illustrates an example embodiment of a m-i-pocket which is inflatable by blowing air into the air valve 33. The inflatable part of the m-i-pocket may also be a separate material and may be removable.

FIG. 31 illustrates an example embodiment of a m-i-pocket using materials with holes as a compartment or panel that enables interlocking in many possible ways.

FIG. 33 illustrates an example embodiment of a m-i-pocket which functions as a hydration sleeve or hot/cold pack with or without a dettachable hydration tube.

FIG. 34 illustrates an example embodiment of a m-i-pocket which functions as a document and stationery folder.

FIG. 39 illustrates an example embodiment of a m-i-pocket which functions as a charging station, with portable solar panels, chargers, media cord openings for wires and/or compartment(s) for electronics.

FIG. 35 illustrates an example embodiment of a m-i-pocket made from flexible electric shielding materials, that protects cards, IDs, credit/debit cards etc from skimmers by using RFID-Blocking fabrics in at least one of its compartments.

FIG. 36 illustrates an example embodiment of a m-i-pocket that caters to specialty professions for example, medical, millitary, sports, white/blue collars etc.

DETAILED DESCRIPTION OF THE INVENTION

The preferred features of this invention will now be described with reference to the accompanying illustrations. However, it is to be understood that the features illustrated in and described with reference to the illustrations are not to be construed as limiting on the scope of the invention.

For the purposes of understanding the embodiments described herein, reference is now made to the illustrations and descriptions in the following explanations. The scope of the invention is not intended to be limited by the discussion of any one particular embodiment. This disclosure includes any alterations and modifications to the illustrated embodiments and also includes further applications of the principles of the described embodiments, including the combination, substitution, or non-inclusion of various features from various embodiments, variations in sizes, shapes, layers, materials, compartment, colors, patterns, print, decorations, fasteners etc.

The term ‘hosts’ refer to host garments , host bags, host lugagges , and other hosts that require the use of connectors 3, or 28h or half of fastener(s) 6, or, or fastener(s) 8 to interlock to m-i-pockets. Example embodiments of hosts including but not limited to clothes, apparels, garments, bags, luggage, vehicles, interior spaces, exterior spaces, various furniture, outdoor gears, professional equipments etc.

The design of m-i- pockets ranges from basic to complex depending on the applications. A basic m-i-pocket consists of, one or more panels folded/attached to become front and back panels, forming one or more compartment with one or more opening, and one or more half of fastener 6 attached to one or more edges of the front and back panels. In contrast, a complex m-i-pocket may or may not have half of fastener 6 but may have one or more additional features for example holes 16, loop 11, compartment details 10, fasteners 8, in FIGs. 25 and 31, straps 9, expandability in FIG. 18b, air pocket in FIG. 30 and other features. M-i-pockets may or may not be double sided and may or may not have one or more compartments on either or both sides.

Embodiments of m-i-pockets, fasteners 6, 5 and connectors 3 may also be attached on the inside or outside of the hosts. All m-i-pockets mentioned in this invention may or may not be creative in nature. The design details of actual m-i-pockets may come in a variety of different sizes, shapes, compartments, layers, materials, thickness, functions, colors, patterns, prints, decorations, fasteners etc.

Referring now to the invention in more details, FIG. 1 shows the outer host garment , which acts as a host to which m-i-pocket(s) are interlocked. The exterior of the host garments may look like any apparel wearable by people. Host garment(s) 1 in FIGs. 1, 2, 3, 4, 5a, 5b, 6a, 6b, 12a, 12b, 12c 14a, 14b, 14c cover all apparel forms, including but not limited to tops, bottoms, skirts, dresses, pants, suits, jackets, shirts, t-shirts, hoodie, jackets, coats, waistcoats, windbreakers, sportswears, raincoats, swimwears, underwears, trousers, jeans, slacks, shorts, skorts, culottes, belts, and the like. The catergory of host garments mentioned above includes but not limited to kids, adults, elderlies; medical, military, blue and white collar workers, uniforms, outdoors, sports, fashion and other garment categories. The designs of host garments are not limited to the sizes, shapes, layers, thickness, colours, prints , patterns, textures, and materials etc.

The host may also be worn or used without m-i-pocket, but one host must be able to interlock with at least one m-i-pocket. The design, materials, sizes and shapes of hosts should accommodate the design, sizes, shapes, thickness, layers and materials of the m-i-pockets, the specific needs of the consumer using it, and the sizes and shapes of the items that are intended to be stored. Accordingly, all hosts mentioned in this patent may be artistic or creative in nature.

The openings 2 in FIGs. 2, 6a, 6b, 12a, 12c, 14a, 14c allow hands to reach into m-i-pocket(s) from the exterior of the host garments. Each host garment may have none to multiple opening(s) 2, whereby the opening(s) 2 may or may not have a fastener attached. There may or may not be flaps that covers the opening(s) 2 on the host(s). The flaps may be made of the same material(s) as the host(s) or may not be made from the same material as host(s). The opening(s) 2 may be located anywhere on the host garments , and depending on design of host garments, opening(s) 2 may be hidden by a piece of seam. Opening(s) 2 may be in different sizes, shapes, location, direction and angles, and may have one or more different fastening methods for closure, with fastener(s) including but not limited to zippers, buttons, velcros, strings, buckles, snaps, press studs, hooks and loops, pins, brooches, magnets, hooks and eyes, frog fasteners, toggle fasteners, push button clasp, snaps, metal fasteners, buckles, grommets/ eyelets, cords, ribbons, clips, locks, hooks, laces, toggles, drawstrings, belt hook, buttonhole, buttonhook, cord lock, toggles, fibula (brooch), rivet, shank (sewing), shirt stud, shoelaces, snap fastener, straps, turn locks, tri-glide slide, rotating hook, buckles, side release buckle, cinch buckle, snap buckle and the like.

FIGs. 2, 6a, 6b illustrate examples of m-i-pockets detached from the inside of host garment leaving connectors 3 behind. Connectors 3 are permanently attached to host garment .

Connectors 3 is a linking device in hosts that interlocks with m-i-pockets. Examples of connector 3 are depicted in FIGs. 2, 3, 4, 5a, 5b, 6a, 6b, 12a, 12b, 12c 18a, and 19a. Connector 3 is made of one or more types of material(s) that permanently attached to the hosts and half of fastener 6. The half of fastener 6 on connector 3 interlocks with the other half of fastener 6 of m-i-pockets so m-i-pocket can be interlocked to the host. Connector 3 may or may not be present in hosts, as half of fastener 6 may permanetly attach to hosts to enable interlocking to the other half of fastener 6 of m-i-pockets.

Additionally, connector 3 may or may not have one or more compartments. An example of such compartment(s) is connector 3 in FIG. 18a where a compartment opening is depicted. The compartment opening(s) in connector(s) 3 may or may not have fastener(s) attached to it.

The permanent attachment method for connector 3 to hosts and half of fasteners 6 includes but not limited to sewing, stitching, bonding, glueing, hotpress, welding and other permanent assembly methods. Connector 3 can be of various shapes, sizes, textures, colors, layers, thickness, colors, patterns, prints, designs, materials, decorations etc. Connector 3 can be located anywhere on hosts and may be used in any hosts.

FIGs. 3, 4, 5a, 5b, 12a, 12b, 12c depict example embodiments of the m-i-pockets with functional compartment details 10, interlocked with fasteners 5 inside host garments .

FIGs. 6a, 6b depict an inside view of host garment , a pair of pants after m-i-pockets are dettached.

Interlocked fastener 5 depicted in FIGs. 3, 4, 5a, 5b, 9a, 9b , 7b, 9c, 12a, 12b, 12c , 18a, 18c 19a,,, 27,29, and is when the half of fastener 6 fastens and interlocks with the other half of fastener 6 on m-i-pockets, connector(s) 3 or itself. Interlocked fastener 5 is also the interlocked and fastened version of half of fasteners 6 on m-i-pockets interlocked with the other half of fastener 6 on the same or other m-i-pockets. Interlocked fastener 5 is the fastener that non-permanently connects and disconnects m-i-pockets to the hosts, to other m-i-pocket(s), and to itself.

A m-i-pocket may have one or more half of fastener 6 attached to its edges or corners. In the cases whereby there are two half of fasteners 6 on a m-i-pocket, the fasteners may be located on the opposite edges or corners of m-i-pockets to interlock into an array/series of m-i-pockets in example FIGs.9a, 9b, or with itself in FIG. 7b.

FIG. 9b shows the back of FIG. 9a, depicting with example embodiment of hole(s) 16 and additional compartments 17b and 17c. Compartments 17b and 17c may or may not have fastnerners on the opening(s), with fasteners not limited to zippers, velcro, buttons and the like. Hole(s) 16 may be on one or more layer(s) of the m-i-pocket material and allows for straps, belts, strings and the like to pass through.

Interlocked fastener(s) 5 or half of fastener 6 comes in different sizes, shapes, materials, designs, and clasping methods, including but not limited to zippers, buttons, velcros, strings, buckles, snaps, press studs, hooks and loops, pins, brooches, magnets, hooks and eyes, frog fasteners, toggle fasteners, push button clasp, metal fasteners, buckles, grommets/ eyelets, cords, ribbons, clips, locks, hooks, laces, toggles, drawstrings, belt hook, buttonhole, buttonhook, cord lock, toggles, fibula (brooch), rivet, shank (sewing), shirt stud, shoelaces, snap fastener, straps, turn locks, tri-glide slide, rotating hook, buckles, side release buckle, cinch buckle, snap buckle and the like.

Strap(s) 9 in FIGs. 8, 9a, 10a, 11a, 11b, 18b, can be chain(s), string(s), rope(s), strap(s), lace(s), elastics, springs, cloth, pvc, leather, various long, flexible materials and the like. Strap(s) 9 act as a strap to hold and hang m-i-pockets, items, and also act as handles, ropes, laces, loops to tie to hosts and consumers when needed.

Straps 9 may also have other uses like handbag in FIG. 8, showned through an example of m-i-pocket and transformed into a drawsting bag in FIG. 11b, backpack in FIG. 18b, The strap(s) 9 may be attached to fastener(s) 8 or hole(s) 16 or various forms of fastenings on m-i-pocket, including but not limited to key ring, carabiners, swivel clasp, pins, hooks, rings, studs, buttons, loops and the like to allow it to be interlockable to other straps 9 or m-i-pockets. Depending on the use, strap(s) 9 may or may not be dettachable/attachable or permanently attached to the m-i-pockets. Another function of straps 9 is to strap items like cardholders, keys, trinkets, and other accessories. Straps 9 can also be made from various materials, adjustable, expendable, stretchable and retractable, with some examples include but not limited to spring spiral strap, retractable strap, elastic strap, stretchable straps etc. The designs of a m-i-pocket may or may not have any strap 9, or may have one or more strap(s) 9. The strap(s) 9 is not limited to size, length, shape, color, layers, materials, thickness, layers, prints, patterns, designs, deorations etc. Strap(s) 9 may or may not be creative in nature.

Compartment(s) details 10 are depicted in various examples in FIGs. 3, 4, 5a, 5b,, 7a, 9a, 9b, 10a, 12a, 12b, 14a, 14b, 18a, 18b,, 30, 33, 34, 39, 35 show example embodiments of various

compartments' design and details of the m-i-pocket(s). Compartment(s) 10 may be of any numbers, copartments, functions, details, sizes, shapes, thickness, layers, patterns, prints, materials, decorations, and colors etc.Compartment(10) may be on the front, back, interior, exterior of m-i-pocket. Compartment(s) may or may not have fasteners attached permanently at it's opening(s). Fastener(s) for compartment opening(s) includes but not limited to zipper(s), velcro(s), clasp(s), button(s), ring(s), snap(s), buckle(s) and the like.

The compartment(s) details 10 may be simple with at least one compartment, one opening, one material, one panel folded into a back/front panel or a separate front/back panels, but may also be complex with multiple compartments, openings, panels, materials and additional features to store as many items as possibe. The compartment(s) opening(s) on m-i-pocket may or may not be attached with fasteners. The compartment(s) details 10 can be of any number, sizes, shapes, layers, panels, thickness, design, materials, colors, decorations, patterns, prints etc. The openings of compartment(s) details 10 may be oriented horizontally, vertically, at any angles and may be located on any panels. Compartment(s) details 10 m-i-pockets may or may not be creative in nature.

Compartment(s) details 10 may be constructed with any materials that can form a compartment. The materials used for m-i-pockets include but not limited to materials of natural and artifical origins, like polyester, nylons, lace, taslan, linen, silk, plastic, metal, wood, fibres, viscose, animal (wool, silk), plant (cotton, flax, jute, bamboo), mineral (asbestos, glass fibre), and synthetic (nylon, polyester, acrylic, rayon, pvc); rubber, silicone, mesh, leather, faux leather etc. The function of the materials used may include but not limted to quick dry, light weight, stretchable, bendable, flexible, see through, sheer, waterproof, radiation proof etc. The seams, materials, compartments, pockets, fasteners, decorations, straps, layers and edges are attached together in any way including but not limited to sewing, stitching, seaming, bonding, heat pressing, folding, gluing, adhesives etc

In more details, hole(s) 16 in FIGs. 8, 9c depict examples of one or more holes in one or more panel(s) of the m-i-pockets. Hole(s) 16 allow mounting and hanging onto other surfaces, hooks, fasteners, hosts, straps, belts etc. Hole(s) 16 may be one or more separate material(s) attached to m-i-pocket or simply cut into the one or more panels of the m-i-pocket. Depending on the design, m-i-pocket may or may not have hole(s) 16.

Hole(s) 16 may have grommet(s) or edge strip(s), stitching and the like attached to it.

In more details, compartments 17b and 17c in FIG. 9b have opening(s). The openings of compartments 17b and 17c may or may not come with a fastener. Pockets 17b and 17c may be located anywhere and in any angles in FIG. 9b . Compartments 17b and 17c may not be limited to one or multiple compartments, shapes, layers, sizes, materials, colors, or designs. The back of m-i-pockets in FIG. 7 may or may not have compartments 17b or 17c.

Loop 11 in FIGs. 10a, 11a, 11b, 11c, is created by permanently attaching the panels of the m-i-pockets together, but leaving a space to allow belts, fasteners and straps and the like to be slotted through. Loop 11 can also be created when an additional piece(s) of material(s) are attached to the panels of m-i-pockets. The material(s) used to create loop 11 may or may not be made from the same material as m-i-pockets. Loop 11 may also be created by leaving space in the attached seams on the edge(s) of m-i-pockets.

Creation methods of loop 11 includes but not limited to stitching, sewning, gluing, bonding, heat-pressing, adhesives and other permanent attachment methods.

A m-i-pocket may or may not have loop 11. A m-i-pocket may have one or more loop(s) 11. Loop 11 may be located on one panel or in between multiple panels layered in the m-i-pocket(s). Loop(s) 11 may also be located on the opening of m-i-pocket compartments depicted in FIGs. 10a, 11a, 11b. Loop 11 can be any size, shape, length, width, height and dimensions.

FIG. 11b depicts another example of embodiment of a m-i-pocket with loop 11 with close and open feature for easy slotting of strap(s) 9 onto the m-i-pocket to transform it into a drawstring bag.

The drawstring closure of drawstring bag in FIG. 11b is created when dettachable straps 9 are dettached and slotted through loop(s) 11 in FIGs. 10a or 11a from one end of the m-i-pocket to another. The other ends of the dettachable straps 9 are strapped to the opposite ends of the m-i-pocket to transform it fully into the drawstring bag in FIG. 11b. The m-i-pocket can be transformed into a draw string bag whether it is flipped inside out or not.

Opening 14 in depicted FIG. 10a is an example embodiment of a compartment opening at an edge of a m-i-pocket that allows the m-i-pocket to be flipped inside out. FIG. 10b depicts the process of flipping the m-i-pocket inside out. Color grey depicts the inside out side. FIG. 11a depicts an example embodiement of the inside out m-i-pocket . When flipped inside out, there may or may not be one or more additional compartment(s) on the inside out side of m-i-pocket. The additional inside compartment(s) may or may not have a fastener on its opening.

FIGs. 10b and 11a depict example embodiments of the inside out version of m-i-pockets with half of the fasteners 6 at the edges to interlock with hosts or other m-i-pockets. The inside out flip feature allows the m-i-pocket to transform into different features or a bag. M-i-pockets may or may not have inside out flip function, depending on the designs.

Compartments 15a and 15b in FIGs. 10a, 11a, 10b, 11b depict example embodiments of compartments and can be located anywhere on or inside the m-i-pocket. Compartments 15a and 15b may be of any shapes, sizes, layers, materials, colors, designs and may or may not have fastener(s) attached to its opening. The purpose of example compartments 15a and 15b is not only to store items, but also to enable m-i-pocket to be collapsed and folded into smaller and compact sizes in FIGs. 10d . FIGs. 10c and 11c depict the process of collapsing and folding the m-i-pockets into smaller and compact size.

The collapsible into a compact size function of compartment 15a and 15b is not limited to any one of the compartments on the m-i-pocket. Any one of the smaller compartments on the m-i-pocket may have this function.

FIGs. 12a, 12b, 12c, 14a, 14b, 14cillustrate example embodiments of m-i-pockets used in a host garment , a jacket.

In FIG. 12a, the m-i-pockets depicted are an example embodiment of design details of m-i pockets in a host garment , jacket. The right side of the host garment jacket shows the outside view of the garment with openings 2, wherein the m-i-pockets underneath are not visible. The m-i-pocket(s) at the back of the host garment jacket is non-permanently attached to the front m-i-pockets with interlocked fastener 5 in FIG.12c. M-i-pockets may be attached non-

permanently on the inside or out of the host garment jacket. Opening 2 may be located in any quantities and anywhere on host garments.

Another example embodiment of m-i-pockets is depicted in FIG. 13. This m-i-pocket design variation can be used in the lower back of host garment jacket., in FIGs. 12b and 14b. FIG. 13 depicts the front of this m-i-pocket, and it has extra side panels 19. The extra side panels 19 can be permanently or non-permanently attached to m-i-pocket of FIG.13. Extra side panels 19 can be non-permanently attached to the front m-i-pockets in the host garment jacket. Extra side panels may also be in the form of straps 9. The purpose of introducing two side panels 19 to the m-i-pocket is for the sides of host garment not to be left empty. The extra side panels 19 may come with different shapes, sizes, materials, no compartment, one or more compartments, in any shapes, sizes, materials, layers, decorations etc. Opening of compartments may or may not have fasteners. Extra side panels 19 may have different design variations, locations and may be in the form elastic, straps 9 or various different sizes, shapes and materials.

Fasteners 8 on m-i-pockets including but not limited to D rings, key rings, carabiners, clips, clasps, swivel clasp, pins, hooks, rings, locks, buttons, pins, buckles, loops, studs, snaps and the like. Depending on usage, fastener 8 may also be in a form of seams or straps. Fastener 8 is similar to fasteners 5 or half of fasteners 6 but is usually used in spots or corners but not edges. Fasteners 8 may be of various shapes, sizes, materials, layers, thickness, prints, decoration, patterns, colors and designs, but does not include zippers.

FIGs. 15, 16, and 17 depict example embodiments of section views of m-i-pockets. Zigzag and dotted lines depict permanent methods of attaching the panels of m-i-pocket(s) together. The permanent methods of attachment include but not limited to stitching, sewing, gluing, heat press, weaving, bonding, welding, adhesives and other permanent attachment methods.

FIG. 15 depicts example embodiment of a basic m-i-pocket which may consist of a front and back panel to form one or more compartments. The section view of the m-i-pockets in FIGs. 28, 29, and 30 can be illustrated in, but not limited to, FIG. 16. These m-i-pockets are inflatable because all edges and corners are permanently airtight sealed together. The inflatable space 21a in FIG.16 can be inflated and deflated with an inflatable valve, nozzle or mouth piece. The example m-i-pockets in FIGs 28, 29, 30 may also have removable inflatable components instead.

M-i-pocket example in FIG. 15 may also be of single layer, with or without additional compartment(s). M-i-pocket may also have variation in the number of layers and compartments in FIGs. 15, 16, 17. , where there may or may not be additional compartment(s) in different shapes, sizes, layers, locations, materials, and the opening(s) of compartment(s) may or may not have fastener(s).

The m-i-pocket depicted in FIG. 17 has half of fastener 6 attached at the inside bottom that enables it to interlock with other m-i-pockets after it is flipped inside out.

At the edges, half of fastener(s) 6 is secured to each of the m-i-pockets depicted in example FIGs. 15, 16, and 17.

The host bag in FIG. 18a, a backpack, is an example embodiment of a bag with m-i-pockets non-permenantly interlocked inside. M-i-pocket 26a is a depicted example with an

expandable feature. When the expandable m-i-pocket 26a detaches from connector 3 in FIG. 18a, it can unfasten fasteners 26b to pop up into a separate bag depicted in FIG 18b. Strap(s)9 of the m-i-pocket can be detached and non-permanently interlocked to the expanded m-i-pocket in FIG 18b. Strap(s) 9 in FIG. 18b may be strapped at other locations depending on design variations. The expanded m-i-pocket in FIG. 18b can be strapped and transformed in the form of daypack, backpack, handbag, sling bag, drawstring bag, shoulder bag and the like. Fasteners 26b can be also attached to the outside of the host bag in FIG.18a with fasteners/loops 26c. Fasteners/loops 26c in FIG. 18a may also conveniently hold ear buds, wires or accessories and can be any type of fasteners mentioned in this patent.

In addition to more details, expandable m-i-pocket 26a in FIG. 18a, 18b may or may not come with additional compartment(s), where by the opening of such compartments may or may not have fastener(s) attached. M-i-pocket in FIG.18a, 18b may or may not have fasteners(s) 26b, or may have one or more fastener(s) 26b. Fasteners 26b are located on at least one corner or edge of the m-i-pocket in FIG. 18a and 18b, they can be various clasps, studs, buttons, buckles, hooks, rings, snaps and the like. The expandable feature of m-i-pocket 26a may or may not apply to any m-i-pockets mentioned in this patent.

The host bag in FIG. 18c, a hand bag, is an example embodiment of m-i-pockets interlocked within a handbag without the use of a connector 28h . Connector 28h may or may not be used with the hosts..

The host bag luggage in FIGs. 19a, a luggage, is an example embodiment of m-i-pockets interlocked within a luggage. In FIG. 19a, fastener(s) 8 on two corners of m-i-pocket(s) can be non-permanently interlocked with connector 28h on the insides of the luggage. The direction of attachment of the m-i-pockets may or may not be limited to attaching vertically, horizontally or at an angle. Consumers can non-permanently interlock one or more m-i-pocket(s) to connector 28h, allowing m-i-pockets to be flipped like a book

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FIG. 19b depicts fastener(s) 8 on one corner of m-i-pocket(s) non-permanently interlocked with connector(s) 28h on the insides of the luggage. Consumers can non-permanently interlock one or more m-i-pocket(s) to connector 28h, allowing m-i-pockets to be freely rotated.

The section views of fastener(s) 8 non-permanently interlockes to connector 28h in FIG. 19a and 19b are illustrated in FIGs. 19c. Connector 28h in FIGs. 19a, 19b, 19c, include but not limited to D-rings, studs, turn locks, buttons, pins, rings, swivel hooks, clasps, key rings, carabiner, S-biner, snap hook, ring binder, pins, rings, studs, snaps, fabrics, plastics and the like. Fastener(s) 8 on m-i-pockets can non-permanently interlock to connector 28h . Connectors 28h is attached permanently to the host luggage. F In case fasteners 8 can be directly attached to the host luggage, connectors 28h can be voided. Connector 28h is similar to connector 3 except it is used in luggages and bags instead of garments

The hosts in FIGs. 18a,18c 19a, 19b include but not limited to back packs, handbags, hobo bags, tote bags, duffle bags, messenger bags, satchels, doctor's bags, laptop bags, bucket bags, bowler bags, wristlets, pouches, clutches, beach bags, shoulder bags, shopping bags, grocery bags, drawstring bags, make up bags, foldover bags, phone bags, camera bags, baguette bags, barrel bags, basket bags, fanny packs, daypacks, belt bags, waist bags, bum

bags, bracelet bags, pochettes, box bags, strawbags, sling bags, haversacks, messenger bags, field bags, sports bags, sports equipment bags, musical instrument bags, portfolio bags, tool bags, garment bags, luggage, suitcases, trunks, briefcases, purses, wallets, phone case wallets, tablet cases, school bags, toiletry bags and the like.

A m-i-pocket can have half of fastener 6 on one edge as shown in FIG. 20 or half of fastener(s) 6 on more than one edge or all four edges, as shown in FIG. 21. M-i-pockets may have different shapes as shown in FIGs. 22 and 23.

Fig.24 depicts an example of m-i-pockets that may have holes 16 on one corner or more than one corner(s). Holes 16 may be in single or multiples in rows or in columns at sides or corners of the m-i-pockets. Holes 16 is for further interlocking purposes. Holes 16 may be in any shapes, sizes, layers, location or numbers.

M-i-pockets can be interlocked together to form an array of pockets. For example, four m-i-pockets in FIG. 24 are interlocked together to form a two by two array in FIG. 26. Similarly, four m-i-pockets in FIG. 21 are interlocked together to form a two by two array in FIG. 27. The number of actual m-i-pockets that can be interlocked may be varied.

FIG. 25 is an example embodiment of a m-i-pocket with at least one panel or additional compartment made from mesh. The holes in the mesh allows m-i-pockets to be interlocked in many ways and at any angles.

The m-i-pockets in FIG. 28 are depicted in curved shapes. When interlocked together, it forms a hood in FIG. 29, that can be attached to and detached from host garments. The hood in FIGs. 28 and 29 may not have any compartment or may have one or more compartment(s). The openings of the compartments in FIGs. 28 and 29 may be located anywhere and may or may not have fasteners attached. The compartments may have a media cord opening. The compartments may also be inflatable to become an air pillow, water pouch, hydration pack, hot/cold pack, etc. The valve 32 in FIG. 28 may be located near the mouth of the user for inflating/deflating of air, attach to hydration tube or straight onto high flow bite valve for drinking liquids.

The compartment(s) in FIG. 30 is an inflatable m-i-pocket which can be transformed into an air pillow or float. The inflatable valve 33 in FIG. 30 allows users to easily inflate/deflate air. When stranded in water the user wearing hosting garment with inflatable m-i-pockets attached may blow air into the inflatable compartment in FIG. 30 as a life vest. When traveling or during transport, users may inflate air into FIG. 30 and use it as an air pillow. FIG. 30 may or may not have additional pocket compartments that are not inflatable for storing items.

In FIG. 31, a m-i-pocket may consist of one or more layers of material(s) with holes to allow versatile connection of various fasteners like hooks, rings, clips, carabiners, buttons, studs, key rings, swivel clasps etc. The material with holes may be mesh, lace, nets and the like. Accessories like pen, keys, trinkets etc may also latch onto the holes of the material(s) with holes. The material(s) with holes on the m-i-pocket in FIG. 31 allows fasteners to attach to other m-i-pocket(s) in any ways.

The compartment(s) of the m-i-pocket in FIG. 3337 can be a water pouch or hot/cool pack etc. The valve 34 in FIG. 33 enables easy filling and draining of liquids and connects to

hydration tube or high flow bite valve 35 for drinking liquids. During cold/hot weathers, the inflatable compartment(s) of the m-i-pocket in FIG. 33 may store hot/cold liquids/gels to become a hot/cool pack. FIG. 33 may or may not have additional regular pocket compartments. These m-i-pockets in FIGs. 28, 36 can be made of special materials that are waterproof, or heat insulating or electric insulating etc.

The m-i-pocket in FIG. 34 can act like a file folder or hidden document pocket to store, organise and protect documents. The m-i-pocket is made from see through materials suitable to storing documents, like various plastics, fabrics, metals, etc. The m-i-pocket in FIG. 34 may or may not come with other compartments.

The m-i-pocket in FIG. 39 could store electronic devices, like on the go charging station, portable solar panels, laptops, tablets, phones, charger ports and the like. It has a media cord opening to allow wire(s) to be built in or pass through and connect to electronic devices, power banks, batteries, usb devices, solar powered electronic devices etc. At least one compartment(s) of the m-i-pocket in FIG. 39 can be made of clear, sheer or net materials that allow users to use touch screen on their devices without taking them out of the compartment(s). In additional details, the m-i-pocket in FIG. 39 may have cable channels to enable cable routing for users to plug in their electronic devices. The m-i-pocket in FIG. 35 has an anti-data-theft function. One or more compartment(s) in the m-i-pockets in FIGs. 39 and 35 may be made of RF blocking fabrics, metallic fabrics, conductive fabrics, and the like to prevent RF radiation and data theft.

The symbols on the m-i-pocket in FIG. 36 signifies that the m-i-pockets can be tailored for use in different specialties and professions. The m-i-pocket in FIG. 36 may have medical care compartment(s) including but not limited to electric heating gel pad, hot/cool pack, medical pouch, portable AED device, support straps etc. Depending on the medical uses, it can be used to manage illnesses for patients and senior citizens. The m-i-pocket in FIG. 36 can fit into hosts such as medical garbs, medical uniforms, doctor’s bag, patient clothing, or conventional garments, etc. It is suitable for medical professionals, patients, elderlies, or for anyone who has injury, medical conditions, or wants to improve health. Other applications of the m-i-pocket in FIG. 36 may be for military/civil defence use. When placed inside the uniforms, it can discreetly hide weapons. M-i-pockets may also be used for sports and athletes.

The above written information of the invention enables a person skilled in the art to make and use what is considered to be the best approach thereof, those of ordinary skill will understand and appreciate the variations, combinations, and equivalents of the specific embodiments, methods, and examples herein that resolve people's needs for storage, organisation, convenience, and protection. The invention should therefore not be limited by the described embodiments, methods features and examples, but by all embodiments and methods within the scope and spirit of the invention as claimed including their construction with new functional materials.