The invention is a wheeled device that provides a base to place all items stored underneath a bed. It enables the user to: 1) fully utilize the entire space underneath their bed. 2) Organize their items in a manner of their choosing (i.e., storage containers) and quickly access those items. 3) Prevent damage to stored items as it provides a “moveable” floor (i.e., no dragging items across floor).

The invention provides a low profile wheeled platform by using two hinged bases together that unfold and form a single platform. Each half of the platform is supported by 4 casters each and handles located on the front serve as devices to push or pull the entire platform into place. The platform is without sides by design so that objects of any shape or size can be placed onto the platform. The invention can be folded, latched and easily transported with its handles.
MOBILE UNDER-BED STORAGE PLATFORM

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims benefit of and priority to U.S. Provisional Application No. 61/591,885, filed Jan. 28, 2012, and is entitled to that filing date for priority. The specification, figures and complete disclosure of U.S. Provisional Application No. 61/591,885 are incorporated herein by specific reference for all purposes.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

BACKGROUND OF INVENTION

[0003] When a person moves into a small space such as a dorm room or small apartment, their living and storage space is limited. Therefore, the person must store items that they need to access daily underneath their bed. Accessing these stored items frequently poses many problems: 1) difficulty utilizing the entire space under the bed because of physical limitations (i.e. reach, strength), 2) difficulty in organizing, quickly locating and accessing items stored under bed and 3) damage to items and storage containers from continued removal (i.e. dragging items or containers across the floor).

[0004] BRIEF SUMMARY OF INVENTION

[0005] The invention, which may be called a “Mobile Under-bed Storage Platform,” is a wheeled device that provides a base to place all items stored underneath a bed. It enables the user to: 1) fully utilize the entire space underneath their bed. 2) Organize their items in a manner of their choosing (i.e. storage containers) and quickly access those items by rolling the platform. 3) Prevents damage to items stored on top of the platform as it provides a “moveable” floor (i.e. no dragging items across floor).

[0006] The invention provides a low profile wheeled platform whereby the user can organize and “load” the platform with the user’s belongings, then simply roll it, out of sight, under the user’s bed. To access the user’s belongings, the user only has to roll the platform out from under the bed.

[0007] When a person moves into a small space such as a dorm room or small apartment, their living and storage space is limited. Therefore, the person must store items that they need to access daily underneath their bed. Accessing these stored items frequently poses many problems: 1) difficulty utilizing the entire space under the bed because of physical limitations (i.e. reach, strength), 2) difficulty in organizing, quickly locating and accessing items stored under bed and 3) damage to items and storage containers from continued removal (i.e. dragging items or containers across the floor).

[0008] Other products designed for under-bed storage such as wheeled storage bins, drawers or containers must be accessed one at a time and limit the user to storing item that only fit within the predetermined size and configurations of the bins, drawers or containers. Whereas, this invention is a base platform that extends the length and width of most of the available space underneath the bed, allows the user to access all of their items at one time while giving the user the opportunity to determine how those items will be arranged and stored on the platform. Another advantage of this invention is that it allows the user to store items regardless of their shape or size (as long as they fit within the available space underneath the bed). Because it is designed with hinges connecting the two halves of the platform, this invention can be folded and closed making it easily transportable with the use of the dosing latch and its handles.

BRIEF DESCRIPTION OF DRAWINGS

[0009] FIG. 1 is perspective view of the storage platform.

[0010] FIG. 2 is a plan view of the storage platform.

[0011] FIG. 3 is a front elevation of the storage platform.

[0012] FIG. 4 is a side elevation of the storage platform (the opposite side elevation is a mirror image).

<table>
<thead>
<tr>
<th>Reference Number</th>
<th>Name of Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Platform</td>
</tr>
<tr>
<td>2</td>
<td>Swivel Caster</td>
</tr>
<tr>
<td>3</td>
<td>Pull/Handle</td>
</tr>
<tr>
<td>4</td>
<td>Hinge</td>
</tr>
<tr>
<td>5</td>
<td>Exterior Corner Trim</td>
</tr>
<tr>
<td>6</td>
<td>Edge Trim</td>
</tr>
<tr>
<td>7</td>
<td>Tongue &amp; Groove Edge Trim</td>
</tr>
<tr>
<td>8</td>
<td>Latch Mechanism</td>
</tr>
</tbody>
</table>

DETAILED DESCRIPTION OF INVENTION

[0013] The platform 1 (shown in FIGS. 1, 2 and 3), casters 2 (shown in FIGS. 1, 2, 3 and 4), pulls handles 3 (shown in FIGS. 1, 2, 3 and 4), hinges 4 (shown in FIG. 4), steel corners 5 (shown in FIGS. 1, 2 and 3), edge trim 6 (shown in FIGS. 1, 2 and 3), and tongue and groove edge trim 7 (shown in FIGS. 1, 2 and 3), are all necessary elements of this invention.

[0014] The platform 1 is constructed in two halves with sides attached that make the two platform halves into separate “trays”. The hinges 4 connect the two halves of the platform 1 to make the two halves work as one platform and give it the ability to fold in half much like a brief case. Casters 2 are attached to the bottom of each half of platform 1 and give the platform 1 the ability to roll. Pulls/Handles 3 are attached to front edge of the front side of the platform 1 to make it easy to pull and push into place. The steel corners 5 and edge trim 6 are attached to the outside corners of the platform halves 1 for protection. The tongue and groove edge trim 7 is located along the edges of the platform 1 halves’ sides for protection, and along with the latch mechanism 8 works to keep the invention closed shut and tightly when the product is in the closed position and being stored or transported.

[0015] The platform 1 is a horizontal platform device, 30" wide and 48" long, designed to allow items to be store on its top side. The platform is fashioned from two equal parts and may be comprised of any hard, supportive material including but not limited to wood, metal and plastic. The platform can be left unfinished or covered with a fabric to protect the platform 1.

[0016] The casters 2 are swivel, rubber wheeled assemblies that are mounted to the bottom of the platform 1, with rivets, and allow the platform to be rolled and easily moved over a flat surface. The casters 2 are 2" swivel casters with steel ball bearings that allow for the wheels to rotate 360 degrees for ease of mobility.

[0017] The pulls/handles 3 are located on the front side of the platform 1 halves, attached with rivets, and are used to pull and/or push the device as well as being used to carry the device while in its closed position. The pulls/handles are
approximately 5" long, can be made of metal or plastic and are attached to the platform 1 using rivets.

[0018] The hinges 4 are mounted to the sides of the platform 1, with rivets, and are used to connect the two platform 1 halves together. The hinges 4 are comprised of metal. One half of the hinge is attached to the side of one of the platform 1 halves and the other half of the hinge is attached to the side of the other platform 1 side. The hinges connect the two halves of the platform 1 making it work as one unit and the hinges also help to hold the two platform 1 halves together in the invention's closed position.

[0019] The exterior corner trim 5 and the edge trim 6 are mounted on the exterior corners and exterior edges of the platform 1. The exterior corner trim 5 and edge trim 6 may be comprised of metal or plastic and are attached with rivets. The exterior corner trim 5 provide structural integrity and protection to the exterior corners of the platform 1 and the edge trim 6 provides protection along the length of the outside corners of the platform 1.

[0020] The tongue and groove edge trim 7 is attached with glue to the open edge of the platform 1 sides. The tongue and groove edge trim can be made from metal or plastic and is attached with glue. The tongue and groove edge trim provides protection to the edges of the platform 1 and also helps keeping the device from racking while in its closed position.

[0021] The latch mechanism 8 is mounted to the opposite sides of the platform 1 and when the device is in its closed position, the latch will help secure and lock the two halves of the platform 1 making it more compact and easier to transport. The latch mechanism 8 is made of metal and is attached using rivets.

[0022] The invention provides a low profile wheeled platform whereby the user can organize and "load" the platform with the user's belongings, then simply roll it, out of sight, under the user's bed. To access the user's belongings, the user only has to roll the platform 1 out from under the bed. When the device is completed, the platform 1 is made up of two equal halves that, when folded out, make a single platform. When in the closed position, the device is folding in half and latched together making it easy to store and transport. Casters 2 are attached to the bottom of the platform 1 giving the platform the ability to roll. Pulls/Handles 3 are attached at the front edge of the platform 1 to make it easier to pull and/or push into place. The pulls/handles 3 also are used to carry the device when it is in its closed position. Trim pieces are attached to the exterior corners and edges to protect the device from normal use. A latch mechanism 8 is used to lock the device and to help keep it shut while the device is in its closed position.

[0023] To make this invention, one must secure the elements including the platform 1 (multiple parts), casters 2, pulls/handles 3, hinges 4, exterior corner trims 5, edge trim 6, tongue and groove edge trim 7 and latch mechanism 8. The first step of production requires cutting of the material for the platform 1; two equal pieces approximately 23.5"x30" for the platforms and 2.25" wide pieces the same lengths of all the sides of the platform pieces. The platform pieces should be assembled to make two equal trays. If the device is to have a fabric finish material applied to the top and sides of the platform pieces, this should be done next. Next the edge trim 6 should be attached to the exterior corners and the tongue and groove edge trim 7 should be attached to edge of the sides of the platform 1 with glue. The exterior corner trims 5 should be attached to the exterior corners with rivets. Next the casters 2 should be attached to the bottom of the platform pieces (trays) using rivets. The casters 2 should be laid out so that the casters 2 installed on one platform piece will not interfere with the casters on the opposing platform piece when the device is in the closed position. The hinges 4 should be attached to the interior sides of each platform piece so that the device can both open it to make one platform surface and so that the platform pieces can move into the closed position. The latch mechanism should be installed to outside edge of the platform so that when the device is in the closed position the latch mechanism 8 can be used to secure and lock the two platform halves together.

[0024] Once the assembly is complete, the user would unlatch the device, open it up and place the assembly on the floor at the side of the user's bed. The user would then "load" the user's items, i.e. storage containers, boxes, etc., onto the platform. Once loaded, the user would grab the pulls/handles 3 and roll the platform under the user's bed. When the user wants to access the same belongings located on the platform, the user simply grabs the pulls/ handles 3 and rolls the platform 1 out from underneath the bed.

[0025] A user could also use the invention to store items below other objects, not just the user's bed, as is the original intent of this project.

1. A mobile under-bed storage platform, comprising of two flat platform pieces connected together to form a single platform unit, supported by casters and includes handles for maneuverability.