One embodiment of a hamper for the insertion into conventional consumer and commercial clothing washers and dryers. The article is cylindrical shaped article to fit inside typical front load and top load commercial or consumer clothing washer and dryer. This embodiment of our hamper has cut out transport handles 2 in the side of the cylinder and handles in the top lip of the cylinder 3. In addition, the base 6 and cylinder sides contain the apertures 1 for liquid drainage during the washing cycle and ventilation during the drying cycle. The cylinder sides may contain recessed baffles 5 along the cylinder walls to fit over the baffles of existing front load washer and dryers or concavities originating in the base to fit over agitators of top load washers.
LAUNDRY HAMPER FOR INSERTION INTO CLOTHES WASHERS AND DRYERS

BACKGROUND

[0001] 1. Field of Invention
[0002] This invention relates to laundry hampers and laundry baskets in the conventional consumer and commercial laundry process. The hamper typically begins with a clothing owner removing soiled clothing and placing the clothing in a laundry hamper. Hampers are generally used for the temporary storage of clothing during the common consumer and commercial laundry cycle. When the laundry is desired to be cleaned, or when the hampers are full, the soiled clothing is transferred to another hamper or to the washing machine, typically a laundry basket, or to the vicinity of the laundry washer and dryer.

[0005] Subsequently the clothing is sorted and combined with other soiled clothes that require similar washing and drying processes. Some users sort the soiled clothing by general categories such as light and dark clothing. Other users sort by specific colors such as whites, blues, reds, yellows etc. Other users sort by type of clothing such as delicates, or exercise clothing, or gardening clothes.

[0006] After the desired sorting, clothes are removed from the basket and inserted into the washing machine until the washing machine drum is full and then the wash cycle is started. After the wash cycle is complete, the soiled clothing is manually pulled from the washer and then inserted into the dryer and the drying cycle is started. When the drying cycle is complete, clean clothes are manually pulled from the dryer, typically in serial fashion and placed into some temporary storage bin or laundry basket. Finally, clean clothing is typically regrouped according to the clothing owner, placed into a laundry basket or bin, and transported back to the location where the owner dresses.

[0007] Laundry containers are commonly in forms of either “hampers” or “baskets.” Hampers are used for the temporary storage of dirty clothes and often are designed to be stationary. Baskets are usually designed for the temporary transport of clothing throughout the laundry process. There are many types of laundry containers known in the art.

[0008] U.S. Pat. No. 2,513,466 discloses a stationary hamper for the temporary storage of soiled clothing. This type of hamper is typically designed as a piece of furniture where the primary benefit is the temporary storage of soiled clothing in a stylish bin. The obvious shortcoming to this type of hamper is that it does not help the user transport, sort, transfer, or group the clothing during the laundry process.

[0009] U.S. Pat. No. 2,625,973 by Weldon and Levitt in 1951 discloses a hamper designed where the hamper is constructed with multiple segments. Weldon and Levitt’s design is to facilitate the prewash sorting of the laundry by the clothing owner or the commercial enterprise. Although this invention solved the sorting problem, it is constructed as a more traditional hamper and is not designed for transport. U.S. Pat. No. 5,833,366 to Dean is a clothes hamper apparatus having removable interior partitions and removable mesh clothing bags which are held within the hamper by system of Velcro and tracks. This design focuses on the sorted temporary storage of the soiled clothing and the more configurable compartments within the hamper wherein the number and size of the formed compartments can be varied.

[0010] U.S. Pat. No. 5,102,208 describes a clothes container having two external clothes bags to augment the capacity of the container and aid in the selective sorting of clothes prior to placement in a washing machine. U.S. Pat. No. 3,995,924 to Jones describes a clothing sorter adapted for the user with a standard clothes hamper. These designs focus on the prewash sorting of clothing by items that require similar washing and drying characteristics. Each design requires the laundry to be manually pulled from the hamper. In addition, these designs do not facilitate the transport of soiled clothing to the laundry vicinity nor do they aid in the transfer of clothing from the washer to the dryer, nor do they aid in the post-wash grouping of clothing by owner.

[0011] U.S. Pat. No. 5,533,272 to McCaskill discloses an apparatus for sorting and transporting clothing garments. Although this device contains dividers to group clothing, and its base mounted wheels facilitate transport, its rectangular shape and externally facing handles make it unsuitable for insertion into a washer or dryer and is unsuitable for participation in the cleaning aspects of the laundry process. As a result this design does not aid in the insertion, removal, or transfer process during the laundry cycle.

[0012] U.S. Pat. No. 5,253,775 to Gould discloses a combined hamper and laundry bag for separating and maintaining small items from large items prior to and throughout the laundry cycle. Although this device is designed to keep smaller items, such as the “free wheeling sock” separated from the bigger items, it only solved the problem of small items being lost in the bottom of the washer or dryer or separated from the owner’s other clothes. This design did not aid in the prewash sorting of the larger laundry items nor does it aid in the transport of the clothing during the broader laundry cycle, nor the post wash grouping.

[0013] U.S. Pat. No. 7,090,902 to Roeuck and Roeuck describes a hamper where the bottom panel moves vertically as additional clothes are inserted or removed thereby keeping the general level of clothing adjacent to the opening of the hamper so that the user need not bend over to remove clothes from the bottom of the hamper. Although this invention aids in the transfer of clothing from the hamper to another device for transportation to the washer and dryer, it does not aid in the transfer process from the washer to the dryer nor does it aid in the post cleaning grouping process.

[0014] U.S. Pat. No. 3,168,271 to Deschenes describes a mechanism where the clothing container bag can be raised and lowered to meet various requirement. The invention described above is supported by telescoping legs above four wheels. This device facilitates the temporary storage, and removal of clothing from the hamper and the transport, but it does not aid in the pre-wash sorting nor the transfer of clothing during the washing and drying process, nor the grouping of clothing after the washing and drying process.

[0015] U.S. D409860 to Rubbermaid is an ornamental design in an elliptically shaped cylinder containing relatively small openings in two sides presumably for ventilation and ornamentation. This design does not contain the shape for insertion into a conventional cylindrical washer or dryer drum. Similarly, U.S. Pat. D376452 to Rubbermaid describes an ornamental design for a laundry basket where the top peripheral rim of the handle curls away from the center of the basket. This design is not desirable for the insertion into the
washing and drying drum and therefore does not aid in the transfer of clothing to the washer and dryer.

[0016] U.S. Pat. D327560 to Hradisky at Rubbermaid describes a rigidly structured laundry basket for grouping of the clothing prior to being washed. U.S. Pat. D421323 to Douglas and Mandell at Rubbermaid shows an ornamental design for a laundry hamper whose design is more associated with typical cylindrical shaped laundry basket. U.S. Pat. D302067 to Yoshikawa shows an ornamental design for a basket with handles raised above the top rim and apparent ventilation squares on the sides. While these designs focus on the temporary storage of clothes and aid in the transport of the clothing to and from the washing vicinity, they do not participate in the washing and drying process nor aid in the transfer of clothing directly from the washer to the dryer.

[0017] There are many disadvantages and unnecessary steps associated with the existing art:

(a) Many users have hampers that are not suitable for transport. These hamper have characteristics more similar to furniture than to transportable bins or baskets. As a result users are required to manually pull the clothing from the hamper and place it into a bin for the initial transport to the laundry area.

(b) Once in the laundry area, the clothing must be serially lifted or dumped in a batch from the basket or hamper into the clothes washer.

(c) The clothing is required to be manually pulled from the washer and inserted into the dryer. For top load machines, this requires the user to repeatedly, and often uncomfortably, reach into the bottom of the washer tub in a serial fashion to remove the clothing and insert it in the dryer. If the dryer is adjacent to the washer, the user can serially insert the clothing into the dryer as it is removed from the washer. If the dryer is not adjacent to the washer, the clean clothing must be put in another temporary storage container, commonly a laundry bin or basket, before being moved in batch to dryer.

(d) With the drying cycle complete, the laundry is required to be manually pulled from the dryer and again placed back into a bin for transportation back to the location where the clothing owner typically dresses.

(e) Often, a single hamper is used for all types of soiled clothing and is also used by many clothing owners. As a result, users must sort the clothing according to the laundry process prior to washing and drying, and then regroup by owner at the end of the process.

(f) When clothing is removed from the washer and the dryer, small garments such as socks and mistakenly washed pocket items, such as money, are inadvertently left in the bottom of the washer or dryer drum and mixed with other laundry loads. As a result, those items become separated from their matching clothing, such as matching socks, or they become separated from the owner’s clothes and are much more difficult to regroup by owner at the end of the laundry cycle.

(g) As clean clothing is manually transferred from the washer to the dryer or manually transferred from the dryer to a laundry container, items frequently fall on the floor or between the washer and dryer and therefore need to be removed or brushed off.

(h) The existing art requires the user to have an unnecessary amount of laundry baskets to accommodate the temporary storage and transport needs. Not only are these additional baskets an unnecessary expense for the user, they also occupy a material amount of space when they are not being used.

SUMMARY

[0026] Thus, the need remains for a clothes hamper that keeps the clothes sorted by washing and drying requirement, facilitates the transport to and from the cleaning area, aids in the transfer of clothing from washer to dryer, facilitates the transport of said clothing back to owner's dressing area, and keeps clothing and objects grouped by owner.

[0027] In accordance with one embodiment, a laundry hamper for insertion into a clothes washer or dryer comprises an open-ended cylinder with form fitted cavities to match the washer and dryer drum and apertures for liquid drainage and air ventilation.

DRAWINGS

Figures

[0028] Drawings of the same embodiment have the same number but different alphabetic suffixes.

[0029] FIG. 1A and its corresponding suffixes are the perspective views of one embodiment for front load washer or dryer according to the concepts of the present invention.

[0030] FIG. 1B is a sectional perspective taken along the base of the embodiment.

[0031] FIG. 1C is sectional detail view of the top lip and handle of the bin.

[0032] FIG. 2A and its corresponding suffixes are perspective views of one embodiment for a top load washer or dryer according to the concepts of the present embodiment.

[0033] FIG. 2B is a sectional view taken substantially from the base of the embodiment.

[0034] FIG. 2C is a perspective view taken substantially from the base of the embodiment.

DRAWINGS

Reference Numerals

[0035] 1 ventilation and drainage apertures

[0036] 2 cut out handle

[0037] 3 upper rim

[0038] 4 agitator

[0039] 5 baffle

[0040] 6 base

[0041] 7 side walls

[0042] 8 capacity indicator

[0043] 9 open top

[0044] 10 internally facing handle

[0045] 11 description

DETAILED DESCRIPTION

[0046] One embodiment of a hamper is illustrated in FIG. 1A, FIG. 1B, and FIG. 1C. The hamper is composed of a heat-resistant and cleaning agent-resistant substance. The hamper has a hollow cylindrical shape with closed bottom 6 and an open top 9, cylindrical side walls 7, a bottom 6, and a plurality of apertures 1 for the ventilation of air and the drainage of liquids. The side walls 7 contain a capacity indicator 8 which indicates when the hamper has reached its maximum capacity to effectively launder clothing. The side
walls 7 contain cut out handles 2 which allow a user to easily grab and transport the hamper. The interior of the cylinder conforms to the shape of a clothing washer or dryer. The cylinder may contain baffles 5 as is common in dryers and front load washers. An upper rim 3 has an internally facing handle 10. The inward handle 10 comprises an internally running lip along the circumference of the top. The lip is joined by a downwardly running ridge. The downwardly running ridge increases the user’s grip. The exposed corners are beveled or rounded to prevent snagging or personal injury. Each hamper contains a type indication 11 describing the clothing type, based on washing and drying preferences that should be inserted in the hamper.

Operation

FIGS. 1A, 1B, 1C

[0047] In this embodiment of our hamper, the user places soiled clothing in the top of one or more hampers. Each hamper is identified by clothing type 11 which allows the user to sort the clothing by the user’s cleaning preferences. Users may combine their fabrics and colors into one load, or the users may separate their clothing into a plurality of hampers based on shading such as light and dark, colors such as a white load, blue load, red load, yellow load, etc. or by cleaning styles such as delicate or permanent press. In the most common example, where the user launders the clothing based on general light and dark colors, each clothing owner has two hampers: one hamper has indication of “light” and the second hamper has an indication of “dark”.

[0048] When the amount of clothing reaches the fill line 8 or when the user desires to clean the soiled clothing, the user transports the hamper to the washing machine by using the side cutout handles 2. By using the internally facing top handle 10, the user inserts the hamper into the clothes washer by ensuring that the baffle concavities 5 fit over the baffles in the washing machine drum. The user then initiates the wash cycle. The form fitting baffles 5 assist in moving the clothing during the cycle. The ventilation and drainage holes 1 allow for the water to be properly drained and the air to be properly ventilated.

[0049] When the washing cycle is complete, the user again uses the internally facing handle 10 to remove the hamper from the washing machine and transfer the hamper into the clothes dryer. When the drying cycle is complete, the user again removes the hamper from the dryer by grabbing the internally facing handle 10. After removal from the dryer, again the user uses the side cut out handles 2 for transporting the hamper to the location where the owner dresses.

FIG. 2

Alternative Embodiment

[0050] An additional embodiment is shown in FIG. 2 and its corresponding suffixes. In the embodiment the concavities are in the form of agitator 4.

Advantages

[0051] From the description above, a number of advantages of some embodiments of my hamper become evident:

[0052] a. There is no need to remove the soiled clothing from the laundry hamper into another bin for transport to the laundry vicinity. The soiled clothing is easily transported to the laundry vicinity by use of the cut out handles.

[0053] b. Since the clothes are sorted when the user initially places them in the indicated hampers, there is no need for removing the items for grouping prior to the washing and drying cycles.

[0054] c. The user does not need to estimate when the capacity indicator, the user knows the hamper has reached the washing and drying capacity.

[0055] d. The user does not have to serially pull the damp clothing from the washer. By lifting the hamper in its entirety all of the clothing is removed in a single instance.

[0056] e. Small articles, such as socks, and pocket items, such as coins, are not mistakenly left in the bottom of the washer or dryer drum and separated from matching clothing.

[0057] f. Washed clothing does not fall on the floor or between the washer and dryer during its transfer from washer to dryer.

[0058] g. After the drying cycle, the clothing does not need to be resorted and grouped according to the owner of the clothing. The hamper contains all of the owner’s clothes, including the matching socks, and all of the owner’s pocket items.

[0059] h. Clothing does not need to be transferred into another bin for transport back to the owner’s dressing area.

CONCLUSION, RAMIFICATIONS AND SCOPE

[0060] Accordingly, the reader will see that hampers of the various embodiments can be used for the temporary storage of soiled clothing as well as for the transportation of said clothing to the washer, the transfer to the dryer, and the transport to the owner’s dressing area. Furthermore, this embodiment of a hamper has additional advantages in that there is no need to remove the clothing from the hamper for transport to washer and dryer;

[0061] there is no need to remove the clothing since have enough clothes to constitute a full load;

[0062] clean clothing will not fall during the transfer from the washer to the dryer;

[0063] small article, such as socks or pocket items, are not separated from each other or from the owner’s other items;

[0064] clean clothing does not need to be resorted into owner specific groupings;

[0065] clothing does not need to be transported into another container or laundry basket for transport to the users dressing area.

[0066] Although the description above contains much specificity, these should not be construed as limiting the scope of the embodiment but as merely providing illustrations of some of the preferred embodiments. For example, our hamper could have multiple shapes to fit the outline of different washer agitators and dryer baffles. The opening for ventilation could be in any shape that facilitates the passage air and liquids. The internally facing top lip could be a plurality of inwardly facing handles. The side cut out handles could be a plurality of shapes.
Thus the scope of the embodiment should be determined by the appended claims and their legal equivalents, rather than by the examples given.

We claim:

1. A laundry hamper of the type for the temporary storage and transport of clothing during the laundry process wherein said hamper comprising:
   a. a cylindrical body having a closed circular base, side walls extending upward from said base, forming an open top defined by an upper rim,
   b. the improvement wherein said side walls have a plurality of internally facing longitudinal concavities originating in the base and extending toward said open top in the form of a laundry machine drum having a predetermined shape whereby said cylindrical body and said concavities provide a means for insertion into said laundry machine drum.

2. The hamper of claim 1 further including a plurality of internally facing handles that wrap the circumference of the said upper rim.

3. The hamper of 1 wherein said concavities are substantially in the form of triangular wedges wherein said wedges extend longitudinally from said base, up said side walls wherein said wedge has a base in said side wall and an opposing peak recessed within said cylinder body.

4. The hamper of claim 1 wherein said cylindrical body is composed of a heat resistant material.

5. The hamper of claim 1 wherein said hamper contains an indication of clothing type.

6. The hamper of claim 1 wherein said walls have a plurality of cutout handles.

7. The hamper of claim 1 wherein said cylindrical body contains a plurality of apertures providing a means for ventilation and drainage.

8. The hamper of claim 1 further including an indication of maximum laundry process capacity.

9. A laundry hamper of the type for the temporary storage and transport of clothing during the laundry process wherein said hamper comprises a cylindrical body comprising a closed circular bottom surface, side walls extending upward from said circular bottom surface and forming an open top defined by an upper rim that wraps the circumference of said cylinder wherein said upper rim has a plurality of internally facing handles whereby said cylindrical body and said handles provide a means for insertion into a laundry machine.

10. The hamper of claim 9 further including a plurality of inwardly facing longitudinal concavities originating in said base and extending longitudinally toward said upper rim in the form of a laundry machine drum having predetermined shapes.

11. The hamper of 10 further wherein said concavity is substantially in the form of triangular wedges wherein said triangle originates in said base and extends longitudinally up said wall wherein said triangle has an triangle peak recessed within said body.

12. The hamper of claim 9 wherein said cylindrical body is composed of heat resistant substance.

13. The hamper of claim 9 wherein said hamper contains an indication of clothing type.

14. The hamper of claim 9 wherein said side walls have a plurality of cutout handles.

15. The hamper of claim 9 further including an indication of maximum laundry process capacity.

16. The hamper of claim 9 wherein said cylindrical body contains a plurality of apertures providing a means for ventilation and drainage.

17. A method for transporting and transferring clothing during the conventional consumer and commercial laundry process comprising:

   a. providing a hamper of the type comprising a cylindrical body, a closed circular base, side walls extending upward from said circular bottom surface and forming an open top defined by an upper rim and a single or plurality of internally facing longitudinal concavities originating in the base and extending upward in the form of laundry machine drums having predetermined shapes and wherein said rim has a plurality of inwardly facing handle, and wherein said side wall has plurality of cut out handles, and wherein said hamper contain a plurality of apertures providing a means for ventilation and drainage,

   b. providing clothing and inserting said clothing in said hamper,

   c. lifting said hamper by grabbing said cut out handle and transporting said hamper to said laundry machine,

   d. grabbing said internally facing handles and inserting said hamper into said laundry machine,

   e. grabbing said internally facing handles and removing said hamper,

   f. grabbing said cutout handles and transporting clothing to preferred destination,

   whereby said cylindrical body and said concavities provide a form consistent with the predetermined form of said laundry machine drum.

18. The method of claim 17 wherein said laundry hamper contains an indication of maximum laundry process capacity.