The present invention relates to a wipe assembly (10) including a plurality of wipes (12,14,16) arranged in a stacked configuration and a method of cleaning using such a wipe assembly (10). Each one of the wipes (12,14,16) having a first surface (32,36,40) and an opposed second surface (34,38,42), each one of the wipes (12,14,16) being capable of rotation from a first position to a second position, each of the wipes (12,14,16) being arranged such that in the first position the second surface of the wipe is arranged in an outwardly facing configuration and in the second position the second surface of an underlying wipe is arranged in an outwardly facing configuration.
Description

FIELD OF THE INVENTION

[0001] The present invention relates to a wipe assembly and a method of cleaning using a wipe assembly, and more particularly to a wipe assembly including a plurality of individual wipes arranged in a stacked configuration and a method of using such a wipe assembly.

BACKGROUND OF THE INVENTION

[0002] Disposable personal care wipes, such as for example baby wipes or wet hand towelettes, are well known in the art and come in a variety of forms and configurations. Such personal wipes are often packaged in one of two common package types. The first package type consists of a liquid impermeable material, such as a metal foil, that contains an individual wipe therein. This type of package is commonly used for wet hand towelettes and the like. The second package type consists of a rigid container, such as a plastic container, that contains a plurality of individual wipes and permits to user to individually remove a single wipe for use. This type of package is commonly used for baby wipes and the like.

[0003] The inventor of the present invention has discovered that a common problem with prior art wipes of the type described above is that once the wipe is used to clean a surface the user must first dispose of the soiled wipe and then grasp a new clean wipe prior to further cleaning. That is, the user must interrupt the cleaning process to first dispose of the soiled wipe and then grasp a new clean wipe prior to continuing the cleaning process. The above described problem is further complicated by the fact that the user may have to open a new foil wrapper, in the case of a wet hand towelette, or may have to retrieve a new clean wipe from within a rigid container, in the case of a baby wipe, prior to further cleaning.

[0004] In view of the above, the inventor of the present invention has discovered a wipe assembly, and a method of cleaning using such a wipe assembly, that overcomes the shortcomings of the prior art wipes described above. In particular, the wipe assembly according to the present invention permits the sequential use of a plurality of clean wipes without significant interruption of the cleaning process.

SUMMARY OF THE INVENTION

[0005] In view of the foregoing, the present invention provides, according to a first aspect of the invention, a wipe assembly including a plurality of wipes arranged in a stacked configuration, each one of the wipes having a first surface and an opposed second surface, each one of the wipes being capable of rotation from a first position to a second position, wherein in the first position the second surface of the wipe is arranged in an outwardly facing configuration and in the second position the second surface of an underlying wipe is arranged in an outwardly facing configuration.

[0006] The present invention provides, according to a second aspect of the invention, a wipe assembly including a top wipe having a first surface and an opposed second surface, a bottom wipe having a first surface and an opposed second surface, an intermediate wipe arranged between the top wipe and the bottom wipe, the intermediate wipe having a first surface and an opposed second surface, wherein the top wipe, the intermediate wipe, and the bottom wipe are coupled to one another and have a first position wherein the wipes are arranged in a stacked configuration, wherein the bottom wipe is capable of rotation from the first position to a second position, wherein in the first position the second surface of the bottom wipe is arranged in an outwardly facing configuration and in the second position the second surface of the intermediate wipe is arranged in an outwardly facing configuration, wherein the intermediate wipe is capable of rotation from the first position to a second position, wherein in the first position the second surface of the intermediate wipe is arranged in an outwardly facing configuration and in the second position the second surface of the top wipe is arranged in an outwardly facing configuration.

[0007] The present invention provides, according to another aspect of the invention, a method of cleaning comprising the steps of: maintaining a wipe assembly on a palm side of a user’s hand, the wipe assembly including a plurality of wipes arranged in a stacked configuration, each one of the wipes having a first and second opposed surfaces; cleaning a surface with a bottom wipe of the plurality of wipes; rotating the bottom wipe from a first position to a second position, wherein in the first position the second surface of the wipe is arranged in an outwardly facing configuration and in the second position the second surface of an underlying wipe is arranged in an outwardly facing configuration; manually retaining the bottom wipe in the second position; and cleaning a surface with the underlying wipe.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008]FIG. 1 is a perspective view of a wipe assembly according to a first embodiment of the present invention;
FIG. 2 is a perspective view of a wipe assembly shown in FIG.1 with a user’s hand partially inserted within the wipe assembly;
FIG. 3 is a perspective view depicting a method for folding a substrate to form the wipe assembly shown in FIG. 1;
FIG. 4 is an exploded perspective view of a wipe assembly according to a second embodiment of the present invention;
FIGS. 5-8 depict a method of using the wipe assem-
bly shown FIG. 1;
FIG. 9 is a perspective view of a wipe assembly ac-
cording to a third embodiment of the present inven-
tion with a user's hand partially inserted within the
wipe assembly; and
FIG. 10 is an exploded perspective view of the wipe
assembly shown in FIG 9.

DETAILED DESCRIPTION OF THE INVENTION

[0009] Referring to Fig. 1, a first embodiment of the
wipe assembly 10 according to the present invention
generally includes a top wipe 12, an intermediate wipe 14,
and a bottom wipe 16. Each of the intermediate and bot-
tom wipes 14, 16 are arranged below the top wipe 12.
Each of the wipes 12, 14 and 16 are coupled to one an-
other and are arranged in a "stacked configuration" as
shown in Fig. 1. The term "stacked configuration" as used
herein means that each of the wipes has a first position
wherein the wipes are arranged in a substantially over-
lapping relationship.

[0010] Referring to Fig. 3, the specific embodiment of
the wipe assembly 10 shown in Figs. 1-3 is preferably
constructed from a single sheet 13 of material that is fold-
ed in the manner shown in Fig. 3 to thereby form the
individual wipes 12, 14 and 16. As shown in Fig. 3, each
individual wipe 12, 14 and 16 is formed by folding the
sheet 13 so that each wipe is defined by two overlapping
layers of material. Specifically, the wipe 12 is defined by
material layers 18 and 20, wipe 14 is defined by material
layers 22 and 24, and wipe 16 is defined by material
layers 26 and 28. The material layers 18, 20, 22, 24, 26
and 28 are then coupled to one another in the folded
configuration shown in Fig. 3 to thereby form the final
wipe assembly 10 shown in Figs. 1 and 2.

[0011] The layers 18 and 20 of the first wipe 12 are left
in a detached state, i.e. they are not sealed to one an-
other, along a proximal edge 29 thereof. In this manner,
an intermediate wipe 31 is defined between the layers 18
and 20 of the first wipe 12. As shown in Figs. 1 and 2,
the chamber 31 is structured and arranged to receive at
least a portion of a user's fingers. In this manner, as shown
in Figs. 1 and 2, a user can maintain the wipe assembly 10
on the palm side of the user's hand during use.

[0012] As shown in Fig. 3, the top wipe 12 includes a
first surface 32 and a second opposed surface 34. Like-
wise, the intermediate wipe 14 includes opposed surfac-
es 36 and 38 and the bottom wipe 16 includes opposed
surfaces 40 and 42. Although the specific embodiment of
the wipe assembly 10 shown in Figs. 1-3 includes three
individual wipes, the wipe assembly 10 according to the
present invention may include two or more individual
wipes.

[0013] Although the wipe assembly 10 shown in Figs.
1-3 is constructed from a single folded sheet of material
it is possible that the wipe assembly 10 could be con-
structed from distinct layers of material that are coupled
to one another to form the final wipe assembly 10 shown
in Figs. 1 and 2.

[0014] With reference to Figs. 5-8, a method of using
the wipe assembly 10 according to the present invention
will be described. First a user's hand is partially inserted
within the chamber 31 such that the user's fingers are at
least partially received within the chamber 31. In partic-
ular, the wipe assembly 10 is arranged such that the user's
finger's are at least partially received within the cham-
ber so that the remainder of the wipe assembly is main-
tained on the palm side of the user's hand. Once the user
has inserted his or her finger's within the chamber 31 as
shown in Fig. 5, the user may then utilize the bottom wipe
16 of the wipe assembly 10 to clean a surface, absorb a
fluid, or use the wipe for some other cleaning purpose,
as shown in Fig. 6. When the bottom wipe 16 is in its
original stacked configuration it is noted that its second
surface 42, i.e. its bottom surface is arranged in an out-
wardly facing configuration and thus the surface 42 can
be utilized for cleaning purposes.

[0015] Referring to Fig. 7, the second surface 38 of the intermediate
wipe 14, i.e. its bottom surface, is arranged in an out-
wardly facing configuration and thus the surface 38 can
be utilized for cleaning purposes. As shown in Fig. 8,
during use the user can retain the bottom wipe 16 with his
or her thumb and utilize the intermediate wipe 14 to fur-
ther clean the soiled surface or the like. In this manner,
the user does not have to substantially interrupt the clean-
ning process to access a new clean wipe. Rather, the user
can rotate the bottom wipe 16 from its original
stacked configuration to its second position, retains the
bottom wipe 16 with his or her thumb, thereby exposing the
intermediate wipe 14 and continues the cleaning process.
After the intermediate wipe 14 is rotated the user may then
likewise rotate the wipe 14 to thereby expose the top
wipe 12 and continue the cleaning process.

[0016] Figure 4 depicts an exploded view of second
embodiment of a wipe assembly 110 according to the
present invention. The wipe assembly 110 generally in-
cludes a top wipe 112, a intermediate wipe 114, and a
bottom wipe 116. Each of the intermediate and bottom
wipes 114, 116 are arranged below the top wipe 112.
Each of the wipes 112, 114 and 116 are coupled to one
another and are arranged in a "stacked configuration" as
shown in Fig. 4.

[0017] The specific embodiment of the wipe assembly
110 shown in FIG. 4 is constructed from three distinct
sheets 118, 120 and 122 of material that are coupled to
one another to thereby form the wipe assembly 110. The sheet 112 is folded to form opposed material layers 124 and 126. The sheets of material 118, 120 and 122 may be coupled to one another in any known manner, for example by means of adhesive, sewn to one another, thermobonding or ultrasonic bonding (in which for either case, one or more of the layers is allowed to melt and resolidify so that it bonds with the other layer), selective hydroentanglement, or the like.

The layers 124 and 126 of the top wipe 112 are left in a detached state, i.e. they are not sealed to one another, along the respective proximal edges 129a and 129b thereof. In this manner, a chamber 131 is defined between the layers 124 and 126 of the top wipe 112. The chamber 131 is structured and arranged to receive at least a portion of a user’s hand during use. More specifically, the chamber 131 is structured and arranged to receive at least a portion of the user’s fingers. In this manner, a user can maintain the wipe assembly 110 on the palm side of the user’s hand during use.

As shown in Fig. 4, the top wipe 112 includes a first surface 132 and a second opposed surface 134. Likewise, the intermediate wipe 114 includes opposed surfaces 136 and 138 and the bottom wipe 116 includes opposed surfaces 140 and 142.

The intermediate wipe 114 generally includes a main body portion 150 and a tab portion 152 that extends outwardly from the main body portion 150 of the intermediate wipe 114. Specifically, the tab portion 152 is structured and arranged such that it distally extends away from the main body portion 150, and the user, during use. Likewise, the bottom wipe 116 generally includes a main body portion 160 and a tab portion 162 that extends outwardly from the main body portion 160. Specifically, the tab portion 162 is structured and arranged such that it distally extends away from the main body portion 160, and the user, during use. As shown in Fig. 4, the tab 152 of the intermediate wipe 114 is preferably offset relative to the tab 162 of the bottom wipe 116, that is the tab 152 is not vertically aligned with the tab 162.

The embodiment of the wipe assembly 110 shown in Fig. 4 functions in use in the same manner as the first embodiment of the invention described above with referenced to Figures 1-3. That is, after the user has utilized the bottom wipe 116 to clean a surface or the like, and the user desires a new clean wipe, the user may rotate the bottom wipe 116 from its original stacked configuration towards the user and retain the soiled wipe with the user’s thumb, thereby revealing the clean underlying intermediate wipe 114. The user may then use the intermediate wipe 114 to further clean the surface or the like. Thereafter, the user may then rotate the intermediate wipe 114 from its original stacked configuration towards the user and retain the soiled wipe with the user’s thumb, thereby revealing the clean underlying top wipe 112. The tabs 152 and 162 are structured and arranged to enable the user to more easily grasp and rotate the bottom wipe 116 and the intermediate wipe 114 as such wipes are soiled during use.

Although the specific embodiment of the wipe assembly 110 shown in Fig. 4 includes three individual wipes, the wipe assembly 110 according to the present invention may include two or more individual wipes.

Figure 10 depicts an exploded view of third embodiment of a wipe assembly 210 according to the present invention. The wipe assembly 210 generally includes a top wipe 212, an intermediate wipe 214, and a bottom wipe 216. Each of the intermediate and bottom wipes 214, 216 are arranged below the top wipe 212. Each of the wipes 212, 214 and 216 are coupled to one another and are arranged in a "stacked configuration" as shown in Fig. 10.

The specific embodiment of the wipe assembly 210 shown in Figs. 9 and 10 is constructed of three distinct sheets 218, 220, and 222 of material that are coupled to one another to thereby form the wipe assembly 210. The sheets of material 218, 220 and 222 may be coupled to one another in any known manner, for example by means of adhesive, sewn to one another, thermobonding or ultrasonic bonding (in which for either case, one or more of the layers is allowed to melt and resolidify so that it bonds with the other layer), selective hydroentanglement, or the like.

As shown in Fig. 10, the top wipe 212 includes a first surface 232 and a second opposed surface 234. Likewise, the intermediate wipe 214 includes opposed surfaces 236 and 238 and the bottom wipe 216 includes opposed surfaces 240 and 242.

As shown in Fig. 9 and 10, the wipe assembly 210 further includes a strip 250 of material coupled to the top wipe 212 such that the strip 250 is arranged in opposed relationship to the first surface 232 of the top wipe 212. The strip 250 is structured and arranged so that a user may insert the user’s hand between the strip 250 and the first surface 232 of the top wipe 212. In this manner, as shown in Fig. 9, a user can maintain the wipe assembly 210 on the palm side of the user’s hand during use.

As shown in Figs. 9 and 10, the top wipe 212 is preferably dimensioned such that it extends from the base of a user’s palm to the end of, or beyond, a user’s fingertips. Stated another way, the top wipe 212 is preferably dimensioned such that the leading edge portion 262 of its peripheral edge 260 extends to or beyond a user’s fingertips during use.

The embodiment of the wipe assembly 210 shown in Figs. 9 and 10 functions in use in the same manner as the first embodiment of the invention described above with referenced to Figures 1-3. That is, after the user has utilized the bottom wipe 216 to clean a surface or the like, and the user desires a new clean wipe, the user may rotate the bottom wipe 216 from its original stacked configuration towards the user and retain the soiled wipe with the user’s thumb, thereby revealing the clean underlying intermediate wipe 214. The user may then use the intermediate wipe 214 to further clean
A wipe assembly comprising:

1. Claims  the invention.

Changes and modifications that are within the scope of the invention are intended to cover in the appended claims all such changes and modifications that are obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the invention. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of the invention.

**Claims**

1. A wipe assembly comprising:

   a plurality of wipes arranged in a stacked configuration, each one of the wipes having a first surface and an opposed second surface; each one of the wipes being capable of rotation from a first position to a second position, wherein in the first position the second surface of the wipe is arranged in an outwardly facing configuration and in the second position the second surface of an underlying wipe is arranged in an outwardly facing configuration.

2. A wipe assembly comprising:

   a top wipe having a first surface and an opposed second surface; a bottom wipe having a first surface and an opposed second surface, an intermediate wipe arranged between the top wipe and the bottom wipe, the intermediate wipe having a first surface and an opposed second surface;

   wherein the top wipe, the intermediate wipe, and the bottom wipe are coupled to one another and have a first position wherein the wipes are arranged in a stacked configuration; wherein the bottom wipe is capable of rotation from the first position to a second position, wherein in the first position the second surface of the bottom wipe is arranged in an outwardly facing configuration and in the second position the second surface of the intermediate wipe is arranged in an outwardly facing configuration; and wherein the intermediate wipe is capable of rotation from the first position to a second position, wherein in the first position the second surface of the intermediate wipe is arranged in an outwardly facing configuration and in the second position the second surface of the top wipe is arranged in an outwardly facing configuration.

3. The wipe assembly according to claim 1, further comprising a mechanism for maintaining the plurality of wipes on a palm side of a user’s hand during use of the wipe assembly.

4. The wipe assembly according to claim 2, further comprising a mechanism for maintaining the plurality of wipes on a palm side of a user’s hand.

5. The wipe assembly according to claim 3, wherein a top wipe of the plurality of wipes, or the wipe assembly according to claim 4, wherein the top wipe, comprises a first layer and a second layer of material.

6. The wipe assembly according to claim 5, wherein the first and second layers are coupled to one another to define a chamber between the layers, the chamber structured and arranged to receive at least part of a user’s hand to thereby maintain the wipe assembly on a palm side of the user’s hand during use of the wipe assembly.

7. The wipe assembly according to claim 6, wherein the wipe assembly is formed from a single folded sheet of material.

8. The wipe assembly according to claim 3, wherein a sheet of material forms a top wipe of the plurality of wipes, the sheet being folded to define first and second opposed layers of material, or the wipe assembly according to claim 4, wherein the top wipe is formed
by a folded sheet defining first and second opposed layers of material, the first and second layers being coupled to one another to define a chamber between the layers, the chamber structured and arranged to receive at least part of a user’s hand to thereby maintain the wipe assembly on a palm side of the user’s hand during use of the wipe assembly.

9. The wipe assembly according to claim 3 or 4, wherein the mechanism comprises a sheet of flexible material coupled to the plurality of wipes or the top wipe, the sheet of material being structured and arranged to permit a user to insert at least part of the user’s hand between the sheet of material and a top wipe of the plurality of wipes or the top wipe to thereby maintain the wipe assembly on a palm side of the user’s hand during use of the wipe assembly.

10. The wipe assembly according to claim 3, wherein each wipe, or the wipe assembly according to claim 4, wherein each of the intermediate wipe and bottom wipe, is structured and arranged such that the wipe may be maintained in the second position by a user’s thumb when the wipe assembly is maintained on the palm side of the user’s hand.

11. The wipe assembly according to claim 3, wherein the plurality of wipes includes at least a first wipe and a second wipe each of the first wipe and the second wipe including, or the wipe assembly according to claim 2, wherein each of intermediate wipe and bottom wipe include, a main body portion and a tab portion extending outwardly from the main body portion.

12. The wipe assembly according claim 11, wherein each tab portion is structured and arranged such that it extends distally away from a user during use of the wipe assembly.

13. The wipe assembly according claim 12, wherein the tab portion of the first wipe is offset relative to the tab portion of the second wipe.

14. The wipe assembly according to claim 2, wherein the top wipe, intermediate wipe, and bottom wipe include a peripheral edge, and wherein the peripheral edge of the top wipe, intermediate wipe, and bottom wipe each includes a leading edge portion, the leading edge portion of the top wipe being recessed relative to the leading edge portion of the intermediate wipe, and the leading edge portion of the intermediate wipe being recessed relative to the leading edge portion of the bottom wipe.

15. A method of cleaning comprising the steps of: maintaining a wipe assembly on a palm side of a user’s hand, the wipe assembly including a plurality of wipes arranged in a stacked configuration, each one of the wipes having a first and second opposed surfaces; cleaning a surface with a bottom wipe of the plurality of wipes; rotating the bottom wipe from a first position to a second position, wherein in the first position the second surface of the wipe is arranged in an outwardly facing configuration and in the second position the second surface of an underlying wipe is arranged in an outwardly facing configuration; manually retaining the bottom wipe in the second position; and cleaning a surface with the underlying wipe.

16. The method according to claim 15, wherein the step of maintaining the wipe assembly on a palm side of the user’s hand comprises at least partially inserting a user’s fingers into a mechanism for maintaining the plurality of wipes on a palm side of a user’s hand.

17. The method according to claim 16, wherein the step of manually retaining the bottom wipe in the second position comprises retaining the bottom wipe in the second position by means of a user’s thumb.

18. The method according to claim 17, further comprising rotating the underlying wipe from a first position to a second position, wherein in the first position the second surface of the underlying wipe is arranged in an outwardly facing configuration and in the second position the second surface of a second underlying wipe is arranged in an outwardly facing configuration.

19. The method of claim 15, wherein the plurality of wipes comprises a top wipe, a bottom wipe, and an intermediate wipe arranged between the top and bottom wipe, each of the wipes having a first position wherein the wipe is arranged in a stacked configuration relative to the other wipes, and wherein the step of cleaning a surface with the underlying wipe comprises cleaning a surface with the intermediate wipe.

20. The method according to claim 19, further comprising rotating the intermediate wipe from a first position to a second position, wherein in the first position the second surface of the intermediate wipe is arranged in an outwardly facing configuration and in the second position the second surface of the top wipe is arranged in an outwardly facing configuration.

21. The method according to claim 20, further comprising cleaning a surface with the top wipe.