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Señor

SUPERINTENDENTE DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES

E. _____ S. _____ D. _____

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SECRETARIA Y COMERCIO
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Temática: 300 PATENTES I 1 FORMULARIO PARA COMERCIO
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Re: P1.-UNILEVER N.V.-Solicitud de Patente de Invención para
"ENVOLTURAS PARA JABONES".-Clase A.47L.-Expediente
número 00-001.439.-

1. Me refiero al auto dictado por ese Despacho notificado por fijación en lista de 19 de Mayo de 2005 y al memorial de plazo de 11 de Agosto del mismo año.

2. La presente invención ha sido objetada por medio del Concepto Técnico No. **662**, en el cual se establece que la solicitud carece de Claridad y de Unidad de Invención.

3. **Modificaciones al Capítulo Reivindicatorio**

Como parte de los argumentos de respuesta a las objeciones de claridad y unidad de invención de la presente solicitud, expuestos por el señor Examinador en su Concepto Técnico No. **662**, me permito manifestar que es deseo del solicitante presentar un nuevo capítulo reivindicatorio mediante el cual se han realizado las siguientes modificaciones:

- (i) En primer lugar, se ha modificado el estilo de redacción de todas las reivindicaciones con el fin de estructurarlas en dos partes, preámbulo y parte caracterizante separadas por la expresión "caracterizado por", tal como lo ha solicitado el señor Examinador;
- (ii) Se ha modificado el preámbulo de las reivindicaciones 1 a 15 con el fin de aclarar que el objeto para el cual se solicita protección no corresponde a una barra de jabón como tal, sino al **miembro de refuerzo** que se encuentra envuelto lateralmente y alrededor de por lo menos un tramo longitudinal de una barra de jabón,

definiendo dicho miembro de refuerzo posteriormente por sus diversas características técnicas, y

- (iii) Se ha modificado el preámbulo de las reivindicaciones 16 a 21 con el fin de reivindicar un empaque que comprende una barra de jabón **y el miembro de refuerzo previamente caracterizado** en las reivindicaciones 1 a 15 anteriores, junto con una envoltura externa que los envuelve completamente, en donde dicho empaque se caracteriza por las propiedades de dicha envoltura y su combinación con los elementos previamente expuestos.

En relación con lo anterior, anexo me permito presentar una copia del nuevo capítulo reivindicatorio, en la cual se han realizado las modificaciones anteriormente expuestas.

Finalmente, me permito señalar que las anteriores modificaciones **no constituyen una ampliación** de la materia inicialmente revelada, toda vez que las mismas, además de estar plenamente sustentadas en la descripción, se realizan únicamente con el fin de caracterizar en forma más clara, y de acuerdo con las sugerencias expuestas por el señor Examinador, el objeto enseñado en la presente invención y de esta forma superar las objeciones de claridad y unidad de invención señaladas en su Concepto Técnico.

4. Claridad de la Solicitud

4.1. Descripción:

Como primera medida, y de acuerdo con las modificaciones anteriormente presentadas, me permito dirigir la atención del señor Examinador al hecho de que el solicitante ha definido en forma clara y precisa el objeto que se desea proteger, esto es, **el miembro de refuerzo** y la combinación de este miembro de refuerzo con una barra de jabón y una envoltura exterior, despejando así cualquier duda acerca de la identidad de la materia sobre la cual se pretende el privilegio de patente solicitado.

En este sentido, resulta importante señalar que el título de la solicitud (Envolturas para jabones) es coherente con el objeto ahora reivindicado, toda vez que el miembro de refuerzo efectivamente envuelve en forma

parcial una barra de jabón, hace parte de un empaque que envuelve totalmente una barra de jabón y conforma un producto empacado que contiene una barra de jabón envuelta.

Por lo tanto, la descripción inicialmente presentada resulta clara al enunciar que la invención hace referencia a envolturas para jabones, máxime al considerar que a lo largo de la misma se explican en forma detallada las diferentes realizaciones de la solicitud, en las cuales se involucran en forma comprensible elementos como el miembro de refuerzo, la barra de jabón y la envoltura externa, en donde tanto el miembro de refuerzo como la envoltura cumplen con funciones de cobertura y/o protección de la barra de jabón.

4.2. Reivindicaciones

Frente a las objeciones con respecto a la claridad del capítulo reivindicatorio, resulta importante resaltar al señor Examinador en primer lugar que la solicitud únicamente tiene dos reivindicaciones independientes, tanto en el capítulo reivindicatorio originalmente estudiado como en el capítulo ahora presentado, correspondientes a las reivindicaciones 1 y 22. En efecto, la reivindicación 1 modificada se refiere al miembro de refuerzo envuelto alrededor de una barra de jabón y la reivindicación 22 a la combinación del miembro de refuerzo reivindicado previamente, la barra de jabón y una envoltura externa.

En este sentido, me permito dirigir la atención del señor Examinador una vez más al hecho de **que la esencia de la invención recae sobre el miembro de refuerzo**, el cual en combinación con la envoltura externa está pensado para proporcionar protección a la barra de jabón envuelta. En su forma más elemental, la invención hace referencia a la naturaleza exacta del miembro de refuerzo.

Es así como, en su forma más amplia, un aspecto importante del miembro de refuerzo es que las superficies exteriores del mismo están hechas de materiales plásticos. La importancia de este hecho se enfatiza en la solicitud, por ejemplo en la página 2, líneas 25 a 29 del texto de la descripción. Allí se expone que la condición de un miembro de refuerzo con superficies externas hechas de plástico, significa prevención frente al problema del crecimiento de hongos. Como resultado, es posible fabricar el

miembro de refuerzo sin fungicidas. Sin embargo, la característica técnica más importante de la presente invención es que al menos una porción del miembro de refuerzo es transparente, lo cual permite que la barra de jabón y los detalles sobre ella sean visibles a través del refuerzo (ver por ejemplo la página 4, línea 4 a 10 del texto de la descripción), lo cual no era posible con el uso de refuerzos convencionales hechos en papel.

✓ Ahora bien, en relación con la objeción presentada por el señor Examinador frente a la expresión "**miembro de refuerzo**", es importante señalar que, dentro del contexto de la invención y en términos generales dentro del campo técnico de este tipo de productos, el miembro de refuerzo no puede ser más que una hoja sencilla de material plástico, cortada al tamaño y forma apropiados, y doblada alrededor de la barra de jabón, que sirve como soporte y protección para la barra empacada. Adicionalmente, los materiales preferidos para la preparación del miembro de refuerzo, y sus espesores preferidos, así como otras propiedades de dicho miembro son descritos en la solicitud, con lo cual el concepto de "miembro de refuerzo" es completamente claro para la persona versada en la materia a quien va dirigida la invención.

No obstante, me permito llamar la atención del señor Examinador al hecho de que en su forma más básica, el miembro de refuerzo se encuentra definido en el primer párrafo de la página 6 de la invención tal como fue presentada, estableciéndose que dicho **miembro está compuesto por un material laminar rígido, que pueda plegarse alrededor de la superficie longitudinal periférica de la barra menos en los extremos, permaneciendo en esa condición a fin de formar una camisa que la rodee, de tal forma que la misma pueda removerse fácilmente para su uso.**

Sin embargo, y a pesar de las claras definiciones y explicaciones proporcionadas en la descripción, el señor Examinador establece que "en castellano no es comprensible que un miembro esté envuelto alrededor de una barra de jabón" toda vez que "en castellano la palabra 'miembro' significa, según el Diccionario de la Real Academia Española '**parte de un todo unida a él**'. Si se está hablando de una barra de jabón, el cual sirve para lavar, **no tendría mucho sentido afirmar que la envoltura forma parte de la barra**" (resaltado fuera de texto).

Sobre este particular, me permito llamar la atención del señor Examinador al hecho de que si bien el Diccionario de la Lengua Española define la palabra "**miembro**" como "Parte de un todo unida a él", también establece a renglón seguido que "**miembro**" es: "Parte o pedazo de una cosa **separada de ella**"¹ (resaltado fuera de texto, copia anexa).

De acuerdo con lo anterior, es completamente claro que para una persona versada en la materia no resultaría confusa o extraña la expresión "miembro de refuerzo", toda vez que en el campo de productos como el reivindicado, la persona medianamente versada sabe que **la envoltura no forma parte de una barra de jabón**, sino que por el contrario, los refuerzos corresponden a películas o láminas colocadas alrededor de las barras de jabón para otorgar una mayor protección a la barra y resistencia al empaque.

Por lo tanto, se ha demostrado que la expresión "miembro de refuerzo" es totalmente clara para una persona versada en la materia que tuviera acceso a la presente invención, toda vez que la misma no solo ha sido ampliamente definida e ilustrada a lo largo de la descripción, sino además porque en el campo técnico en el cual se desarrolla la solicitud, es claro que dicho miembro **no puede formar parte de la barra de jabón, sino que se trata de una parte separada de ella**, y que como tal debe ser comprendido el significado del vocablo "miembro" dentro del contexto de la invención.

✓ Por otra parte, el señor Examinador establece en su Concepto Técnico No. **662** que "no es lógico proteger una barra de jabón por su envoltura" toda vez que "el jabón no tiene en sí ninguna característica novedosa ni inventiva, la envoltura si podría tenerla en el caso que nos ocupa".

En relación con lo anterior, me permito señalar nuevamente que dadas las modificaciones presentadas con el nuevo capítulo reivindicatorio, la objeción arriba transcrita ha sido plenamente superada, toda vez que las reivindicaciones ya no se encuentran dirigidas a proteger una barra de jabón, sino el miembro de refuerzo que envuelve a dicha barra de jabón.

¹ Real Academia Española, *Diccionario de la Lengua Española*, vigésima segunda edición, España, 2001, página 1503.

✓ Adicionalmente, en el Concepto Técnico No. **662**, el señor Examinador manifiesta que no es claro que se quiere decir mediante la expresión "por lo menos cada una de las respectivas superficies", y pregunta qué podría ser el máximo de esta condición.

Sobre este particular, me permito dirigir la atención del señor Examinador al hecho de que dentro del contexto de la invención, es completamente claro que **como mínimo** el miembro de refuerzo tiene **superficies exteriores** hechas de material plástico, pero en algunas realizaciones, incluso en las preferidas, el miembro de refuerzo **completo** (incluyendo las superficies externas e internas) puede estar hecho de materiales plásticos, tal como se puede apreciar en la página 8 de la descripción, en la cual se establece lo siguiente: "Un refuerzo el cual **puede ser 100% de material plástico**, o de película plástica del tipo de relleno o de papel o cartulina **revestidos en ambos lados con un material plástico**, a condición de que por lo menos parte del refuerzo **sea transparente**" (resaltado fuera de texto). Esta misma idea se puede observar en la página 10 de la descripción, cuando se ilustran los materiales para el miembro de refuerzo.

Adicionalmente, me permito resaltar el hecho de que dentro de las reivindicaciones la expresión objetada dice en forma completa al pie de la letra "por lo menos cada una de las respectivas superficies **EXTERIORES**" (resaltado fuera de texto), lo cual permitiría que la persona versada en la materia que leyera la solicitud comprendiera que el miembro de refuerzo comprende un material laminar rígido provisto de un material plástico **en al menos cada una de las respectivas superficies exteriores** de dicho miembro de refuerzo.

Por lo tanto, se ha demostrado que la expresión "por lo menos cada una de las respectivas superficies" sí es clara y tiene un adecuado sustento en la descripción, máxime cuando se considera que dicha frase viene acompañada necesariamente por el término "exteriores", lo que complementa y facilita la comprensión de dicho concepto.

✓ Posteriormente, el señor Examinador objeta la claridad de las reivindicaciones 16 a 21 originalmente presentadas, toda vez que se encuentran dirigidas a "una barra empacada".

En relación con lo anterior, me permito dirigir nuevamente la atención del señor Examinador al hecho de que las nuevas reivindicaciones 16 a 21 ya no se encuentran dirigidas a una barra empacada, sino que hacen referencia al **empaquete** que comprende la combinación de una barra de jabón y el miembro de refuerzo que corresponde al objeto de la nueva reivindicación 1 y que, por ende, ya ha sido previamente caracterizado, **envueltos adicionalmente en una envoltura exterior**.

Por lo tanto, es claro que esta objeción también ha sido superada por medio de las modificaciones realizadas al capítulo reivindicatorio y que han sido explicadas anteriormente en este mismo escrito.

✓ Finalmente, el señor Examinador objeta la claridad de la reivindicación 22, dirigida a un producto empacado, porque "no puede ser caracterizado por contener jabón o tener una envoltura exterior, porque esta ya forma parte del estado de la técnica".

Sobre este particular, me permito resaltar el hecho de que la reivindicación independiente 22 se refiere, en forma similar a las reivindicaciones 16 a 21, a una reiteración de la **combinación de barra de jabón, miembro de refuerzo y envoltura exterior**, pero haciendo mayor énfasis en la combinación como tal y con más detalles, tales como por ejemplo que la barra tenga detalles superficiales tales como un diseño, logo, motivo, palabra o marca visible, pero más importante aún, **caracterizada porque dicha combinación se realiza de tal forma que por lo menos una porción, tanto del miembro de refuerzo como de la envoltura exterior, son transparentes de modo que permiten que por lo menos una porción del diseño, logo, distintivo, palabra ó marca sean visibles a través del miembro de refuerzo y de la envoltura exterior**.

De acuerdo con lo anterior, es claro que el producto de la reivindicación 22 no se caracteriza por tener una envoltura exterior o una barra de jabón, sino porque la combinación de estos elementos junto con el **miembro de refuerzo** de las reivindicaciones precedentes se hace de tal forma, que por primera vez, es posible contar con un producto de barra de jabón empacada que además cuenta con un miembro de refuerzo

transparente, **con el fin de permitir que la barra y los detalles sobre ella sean vistos** por parte del consumidor.

En consecuencia, los argumentos anteriormente presentados, junto con las modificaciones realizadas, permiten superar completamente las objeciones a la claridad de la solicitud, tanto de la descripción como del capítulo reivindicatorio, presentadas por el señor Examinador en su Concepto Técnico No. **662**.

5. **Unidad de Invención**

Finalmente, el señor Examinador cuestiona la unidad del concepto inventivo de la presente solicitud, al establecer que "Tal como está redactado el capítulo reivindicatorio, la presente solicitud carece de unidad de invención toda vez que configura tres objetos diferentes. Uno es la barra de jabón, que se caracteriza por tener 'un miembro de refuerzo' envuelto alrededor; el segundo una 'barra empacada' que tiene una envoltura alrededor y el tercero un producto empacado, que se caracteriza por comprender un jabón y un empaque".

Sin embargo, y de acuerdo con las modificaciones realizadas a las reivindicaciones y con los argumentos anteriormente presentados, me permito manifestar que el solicitante considera que este aspecto ya ha sido suficientemente aclarado, **toda vez que en una realización la invención se refiere a la combinación de un miembro de refuerzo y una barra de jabón, mientras que en una realización posterior esta combinación puede comprender adicionalmente una envoltura exterior**. Estas son las características de las reivindicaciones independientes 1 y 22, las cuales me permito reiterar, corresponden a partes del mismo concepto inventivo, dado que comprenden como elemento común **un miembro de refuerzo en el cual al menos una parte del material de refuerzo es transparente**, con el fin de facilitar la percepción de las características del producto empacado por parte del consumidor.

Por todo lo anterior, me permito manifestar que se ha demostrado sin lugar a dudas que efectivamente existe un **concepto inventivo común a las reivindicaciones independientes 1 y 22**, por lo que la presente solicitud sí cumple con el requisito de unidad de invención exigido.

6. **CONCLUSION**

Gracias a las modificaciones realizadas sobre el capítulo reivindicatorio y a los argumentos presentados anteriormente, se ha demostrado en forma contundente que la presente invención sí cumple con los requisitos de **claridad de la solicitud y unidad de invención**, toda vez que la materia revelada por el solicitante se encuentra descrita en forma clara y precisa y reivindicada de manera concisa, de tal forma que las enseñanzas divulgadas resultan completamente comprensibles para la persona versada en la materia a quien va dirigida la invención, a la par que se mantiene un concepto inventivo común también claro y bien definido que es fácilmente percibido por el lector medianamente versado.

7. Anexo me permito presentar:

- (i) Recibo No. 05-69.983, expedido por la Superintendencia de Industria y Comercio, que acredita el pago de las modificaciones aquí expuestas; y
- (ii) Copia de las páginas 15 a 18 de las reivindicaciones que reemplazan a las actualmente presentadas, en las cuales se han realizado las modificaciones expuestas anteriormente.

8. En vista de todo lo anterior, ruego a usted proceder a estudiar nuevamente la solicitud a la luz de las argumentaciones presentadas y de las modificaciones realizadas y conceder el privilegio de patente solicitado.

Señor Superintendente,



ALICIA LLOREDA RICAURTE

T.P. 53.215

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NIT : 800176089-2

***** CONSIGNACION *****

***** C O N C E P T O *****

SON: NOVENTA Y UNO MIL PESOS

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

REIVINDICACIONES

1. Un miembro de refuerzo, envuelto lateralmente a una barra de jabón y alrededor de por lo menos un tramo longitudinal de dicha barra, que comprende un material laminar rígido el cual va provisto de un material plástico en por lo menos cada una de las respectivas superficies exteriores, caracterizado porque al menos parte del material de refuerzo es transparente.
2. Un miembro de refuerzo acorde con la Reivindicación 1, caracterizado porque la rigidez del material laminar rígido es de por lo menos 3 Unidades Taber de Rigidez en las direcciones longitudinal y transversal.
3. Un miembro de refuerzo acorde con la Reivindicación 1 ó con la Reivindicación 2, caracterizado porque el miembro de refuerzo tiene un peso por unidad de área entre 50 - 200 g/m².
4. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones precedentes, caracterizado porque por lo menos cada superficie exterior del material laminar rígido es un material termoplástico.
5. Un miembro de refuerzo acorde con la Reivindicación 4, caracterizado porque todo el material laminar es de material termoplástico.
6. Un miembro de refuerzo acorde con la Reivindicación 5, caracterizado porque el material termoplástico contiene, con base en el peso total del miembro de refuerzo, 5 - 30% en peso de un material de relleno y/o agente de soplado.
7. Un miembro de refuerzo acorde con la Reivindicación 5, caracterizado porque el material termoplástico contiene un material de relleno inorgánico, inerte.

8. Un miembro de refuerzo acorde con la Reivindicación 7, caracterizado porque el material de relleno inorgánico inerte es talco ó arcilla.

9. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones 5 a 8, caracterizado porque el material laminar rígido posee un espesor de 50 - 250 μm .

10. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones 5 a 9, caracterizado porque el material termoplástico se selecciona de un grupo conformado por polipropileno, poliestireno, copolímero acrílico/butadieno/estireno, y polietilen-tereftalato, y PVC.

11. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones precedentes, en donde la barra de jabón incluye un distintivo estampado o troquelado como por ejemplo una palabra, ó un logo ó un diseño decorativo ó una característica novedosa en los jabones (tal como franjas ó transparencias), caracterizado porque una parte del miembro de refuerzo que cubre el distintivo ó diseño es transparente de forma tal que el distintivo o diseño es visible a través del miembro de refuerzo.

12. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones precedentes, caracterizado porque todo el material laminar es de material transparente.

13. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones precedentes, caracterizado porque el material laminar rígido no presenta el fenómeno de memoria.

14. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones precedentes, caracterizado porque el miembro de refuerzo rodea por completo por lo menos dicha porción longitudinal de la barra de modo que define una camisa de material laminar rígido.

15. Un miembro de refuerzo acorde con cualquiera de las Reivindicaciones precedentes, caracterizado porque los extremos longitudinales de la barra de jabón no se encuentran rodeados por el miembro de refuerzo.

16. Un empaque que comprende la barra de jabón y el miembro de refuerzo acorde con cualquiera de las Reivindicaciones precedentes, y que adicionalmente incluye

una envoltura, envuelta al alrededor, de una manera tal que rodea por completo, la barra de jabón y el miembro de refuerzo, caracterizado porque la envoltura comprende un material pelicular, por lo menos parte de la cual es transparente.

17. Un empaque como el reivindicado en la Reivindicación 16, caracterizado porque una parte transparente de la envoltura se superpone con una parte transparente del miembro de refuerzo.

18. Un empaque como el reivindicado en las Reivindicaciones 16 ó 17, caracterizado porque toda la envoltura es de un material transparente.

19. Un empaque acorde con la Reivindicación 16, caracterizado porque el material pelicular tiene un espesor de 5 - 50 μm .

20. Un empaque como el reivindicado en cualquiera de las Reivindicaciones 16 a 19, caracterizado porque por lo menos las respectivas superficies exteriores de la envoltura se encuentran provistas de un material plástico.

21. Un empaque como el reivindicado en cualquiera de las Reivindicaciones 16 a 20, caracterizado porque la envoltura es sellada al calor ó es herméticamente sellada.

22. Un producto empacado que comprende:

- una barra de jabón que tiene sobre una superficie de éste un diseño, logo, distintivo, palabra o marca visibles;
- un miembro de refuerzo que comprende un material laminar rígido envuelto lateralmente en la barra, alrededor de por lo menos un tramo longitudinal de ésta; y
- una envoltura exterior la cual rodea por completo la barra de jabón junto con el miembro de refuerzo,

caracterizado porque por lo menos una porción tanto del miembro de refuerzo como de la envoltura exterior son transparentes de modo que permiten que por lo menos una porción del diseño, logo, distintivo, palabra ó marca sean visibles a través del miembro de refuerzo y de la envoltura exterior.

**SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES**

2020

Bogotá D.C., Diciembre 7 de 2005

Doctora

ALICIA LLOREDA RICAURTE

Apoderado **UNILEVER N.V.**

ASUNTO Radicación 00-1439
 Trámite 002
 Evento 001
 Actuación 430
 Oficio
 Folios

13316

Como resultado del segundo examen de fondo, realizado con fundamento en el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. Documentos estudiados:

- A. Para el presente estudio se tuvo en cuenta el capítulo descriptivo, comprendido en los folios 7 a 20 del expediente correspondiente a la solicitud en estudio, tal como fue radicado al inicio del trámite.
- B. El capítulo reivindicatorio tomado en cuenta para el presente estudio comprende 22 reivindicaciones y se encuentra en los folios 117 a 120, el cual reemplazó al que fue radicado al inicio del trámite.
- C. Conforme lo establecen los artículos 9, 10 y 11 de la Decisión 486 de la Comisión de la Comunidad Andina, la presente solicitud en estudio fue presentada el 13 de enero de 2000, en el momento de la radicación se reclamó prioridad. La copia certificada de la solicitud cuya prioridad fue reivindicada (GB 9900951.6 del 15 de enero de 1999) aparece junto con su traducción en los folios 44 a 60.

2. Objeto de la invención:

Las reivindicaciones 1 a 22 de la solicitud en estudio se refieren a: "un miembro de refuerzo, envuelto lateralmente a una barra de jabón y alrededor de por lo menos un tramo longitudinal de dicha barra, que comprende un material laminar rígido el cual va provisto de un material plástico en por lo menos cada una de las respectivas superficies exteriores, caracterizado porque al menos parte del material de refuerzo es transparente" (sic).

El objeto de la solicitud se puede clasificar según la clasificación internacional como B 65 D 68/00.

3. Claridad de la solicitud:

- A. El artículo 28 de la Decisión 486 de la Comisión de la Comunidad Andina establece "la descripción deberá divulgar la invención de una manera suficientemente clara y

completa para su comprensión y para que una persona capacitada en la materia técnica correspondiente pueda ejecutarla”

El solicitante se ha rehusado a corregir las deficiencias encontradas en la descripción y debidamente informadas en el requerimiento hecho por esta Superintendencia en cumplimiento del artículo 45 de la Decisión 486. En dicho requerimiento se indicó que el título de la solicitud (“Envolturas para jabones” no era coherente con lo reivindicado (“una barra de jabón”). Como respuesta a dicho requerimiento ha modificado el objeto de las reivindicaciones por “un miembro de refuerzo” a pesar de que se le había requerido por la falta de claridad de esa expresión. Efectivamente, en ninguna parte de la descripción ni de la carta de respuesta al requerimiento se ha explicado que es lo que refuerza dicho “miembro”. Al expresar “miembro de refuerzo” en castellano la materia a proteger se torna vaga e inconcisa. En su carta de respuesta al requerimiento el solicitante afirma que “para una persona versada en la materia no resultaría confusa o extraña” la dicha expresión y que “los refuerzos corresponden a películas o láminas colocadas alrededor de las barras de jabón”. Sin embargo, en las bases de datos consultados por esta Oficina no se ha encontrado confirmación de esta aseveración y el solicitante tampoco ha adjuntado pruebas documentales del uso de esa expresión. En su respuesta, el solicitante cita una acepción de la palabra “miembro” encontrada en el Diccionario de la Lengua Española. Según lo indicado allí, “miembro” es: “parte o pedazo de una cosa separada de ella”. Esta cita introduce aún más confusión porque no se entiende de quién es parte o pedazo ese tal “miembro de refuerzo”. En ninguna parte queda clara cuál es esa cosa de la cual ese miembro es parte o pedazo. Más aún, al afirmar el solicitante que “los refuerzos corresponden a películas o láminas colocadas alrededor de las barras de jabón” cualquier persona, incluso alguien versado en la materia, se preguntaría si una lámina es parte o pedazo de las barras de jabón. El mismo solicitante afirma que “la envoltura no forma parte de una barra de jabón”. Cualquier persona versada en la materia sabe también que una película o lámina tampoco es parte de una barra de jabón.

En su carta de respuesta al requerimiento de esta Oficina, el solicitante explica que “el miembro de refuerzo se encuentra definido en el primer párrafo de la página 6 de la invención tal como fue presentada”. Nos hemos remitido a dicho párrafo y allí se puede leer: “especialmente se prefiere que el material laminar rígido no presente el fenómeno de memoria, de modo que salga sin plegamiento del rollo en donde se almacene... etc.” Es decir, en dicho párrafo no hay tal definición. No obstante, el solicitante explica que “dicho miembro está compuesto por un material laminar rígido...”. Aún así, queda la duda de qué cosa es parte o pedazo el dicho miembro.

En la descripción se habla de que la “invención se refiere a envolturas para jabones”. En el oficio enviado como respuesta al requerimiento por artículo 45, el apoderado indica que se trata de un “miembro de refuerzo” empleado en un jabón. En el oficio del requerimiento, esta Oficina explicó claramente que la expresión “miembro de refuerzo” no era clara y que de la lectura de las realizaciones preferidas de la invención se entendía que el objeto de la solicitud parecía tratarse de películas plásticas aplicadas a las barras de jabón. A pesar de que en la carta de respuesta el solicitante conviene en que el “miembro de refuerzo” “envuelve el jabón”, el solicitante se ha negado a corregir la solicitud por lo cual no es posible realizar un examen de búsqueda y por ende de patentabilidad.

De acuerdo con lo anterior, la descripción no cumplió con el requisito de claridad

según lo establecido en el artículo 28 de la Decisión 486.

- B. En el artículo 30 de la decisión 486 de la Comisión de la Comunidad Andina se establece: "Las reivindicaciones definirán la materia que se desea proteger mediante la patente. Deben ser claras y concisas y estar enteramente sustentadas por la descripción. Las reivindicaciones podrán ser independientes o dependientes. Una reivindicación será independiente cuando defina la materia que se desea proteger sin referencia a otra reivindicación anterior. Una reivindicación será dependiente cuando defina la materia que se desea proteger refiriéndose a una reivindicación anterior. Una reivindicación que se refiera a dos o más reivindicaciones anteriores se considerará una reivindicación dependiente múltiple." En el artículo 51 se establece además: "El alcance de la protección conferida por la patente estará determinado por el tenor de las reivindicaciones."

Como ya se ha explicado suficientemente en el punto de claridad de la descripción, la expresión "miembro de refuerzo" no es clara en castellano. Al solicitante se le sugirió de manera inequívoca en el requerimiento hecho por esta Oficina que se debería expresar claramente si se trataba de una película, una lámina, de un bloque, de un objeto con una forma geométrica determinada o de algo concreto hecho de un material específico. El solicitante en su carta de respuesta al requerimiento afirma que efectivamente "el miembro de refuerzo no puede ser más que una hoja sencilla de material plástico", pero no corrigió el capítulo reivindicatorio para que esto se viera claramente reflejado en él. Se le indicó que en castellano no es comprensible que un miembro esté envuelto alrededor de una barra de jabón. Se añadió que en castellano la palabra "miembro" significa, según el Diccionario de la Real Academia Española "parte de un todo unida a él". Al estar hablando de una barra de jabón, el cual sirve para lavar, no tiene ningún sentido afirmar que un material laminar rígido forma parte de la barra de jabón. No obstante, el solicitante se ha rehusado a corregir las reivindicaciones para que fueran claras, concisas y precisas **por sí solas** de tal manera que definieran la materia que se deseaba proteger. El solicitante no tomó en cuenta la consideración hecha en el artículo 51 de la decisión 486, indicada también en el requerimiento, de que el alcance de la protección conferida por la patente se determina por el tenor de las reivindicaciones y que por lo tanto éstas deben ser totalmente claras.

En el requerimiento hecho por esta Oficina se indicó al solicitante que no era claro qué significado tenía la expresión "por lo menos cada una de las respectivas superficies", que vuelve a aparecer en el nuevo capítulo reivindicatorio. El solicitante no corrigió esta deficiencia y trató de explicarla aduciendo que "como mínimo el miembro de refuerzo tiene superficies exteriores hechas de material plástico, pero en algunas realizaciones el miembro de refuerzo completo puede estar hecho de materiales plástico". Esta condición de que el material laminar puede estar hecho completamente de material plástico no es compatible con el hecho de que el "miembro de refuerzo" vaya provisto de un plástico mínimo. Una cosa es estar hecho de un material y otra cosa diferente es estar provisto de un material.

De acuerdo con lo anterior, el capítulo reivindicatorio no cumple con el requisito de claridad según lo establecido en el artículo 30 de la Decisión 486. El solicitante deberá anexar un nuevo capítulo reivindicatorio con todas las correcciones aquí requeridas.

4. Evaluación de la unidad de invención

El artículo 25 de la decisión 486 de la Comisión de la Comunidad Andina establece: "La solicitud de patente sólo podrá comprender una invención o un grupo de invenciones relacionadas entre sí, de manera que conformen un único concepto inventivo."

- A pesar de que al solicitante se le indicó en el requerimiento hecho por esta oficina que su solicitud comprendía más de un objeto, es decir el empaque y el "miembro de refuerzo" y de que en el nuevo capítulo reivindicatorio eliminó la cláusula donde reclamaba el jabón, el solicitante ha rehusado a corregir la falta de unidad de invención que aún subsiste entre el "miembro de refuerzo" de las reivindicaciones 1 a 15 y el empaque de las reivindicaciones 16 a 21. Según las explicaciones del solicitante, el "miembro de refuerzo" es un material laminar rígido que envuelve una barra de jabón, mientras que el empaque de la reivindicación 16 comprende además del "miembro de refuerzo", una envoltura que rodea al jabón y al "miembro de refuerzo", caracterizándose por comprender un material pelicular. Según esto, el "miembro de refuerzo" de la reivindicaciones 1 a 15 no es el mismo material pelicular que caracteriza el empaque de las reivindicaciones 16 a 21 y por lo tanto el objeto de las reivindicaciones 1 a 15 no comparte un concepto común inventivo con el objeto de las reivindicaciones 16 a 21. En su carta de respuesta, el solicitante afirma que el concepto común inventivo consiste en el "miembro de refuerzo" pero tal y como están redactadas las reivindicaciones esto no es así porque en la reivindicación independiente 16 el miembro de refuerzo se encuentra en el preámbulo y el empaque objeto de dicha reivindicación tiene como característica un material pelicular transparente que no guarda una relación directa con el "miembro de refuerzo".

De acuerdo con lo anterior, la presente solicitud no cumple con el requisito de unidad de invención según el artículo 25 de la Decisión 486.

5. Determinación del estado de la técnica:

El artículo 16 de la Decisión 486 de la Comisión establece que: "El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización, comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente o, en su caso, de la prioridad reconocida."

"Solo para el efecto de la determinación de la novedad, también se considerará dentro del estado de la técnica el contenido de una solicitud de patente en trámite ante la oficina nacional competente, cuya fecha de presentación o de prioridad fuese anterior a la fecha de presentación o de prioridad de la solicitud de patente que se estuviese examinando, siempre que dicho contenido esté incluido en la solicitud de fecha anterior cuando ella se publique o hubiese transcurrido el plazo previsto en el artículo 40"

La fecha para determinar el estado de la técnica es el 15 de enero de 1999, tomando en cuenta la prioridad reivindicada.

Consultadas las bases de datos y los archivos con que cuenta la entidad, especialmente bajo las clasificaciones B 65 D 68/00, se encontró que antes del 15 de enero de 1999 habían sido publicados los documentos enumerados en la siguiente tabla.

12345678910

No.	Documento	Título	Fecha de publicación
D1	US 1,657,391	Soap cake	1928-01-24
D2	US 5,183,429	Children's toy and both soap assembly	1993-02-02
D3	US 3,149,188	Manufacture of ready-to-use cakes of soap and like cleansing materials	1964-09-15
D4	US 4,754,874	Bar soap and its package	1988-07-05
D5	US 4,406,364	Wrapped combination of soap and receptacle for the soap	1983-09-27
D6	DE 1914415	Transparent-Stuckenseife	1970-10-01
D7	US 2,155,668	Package	1939-04-25
D8	US 2,267,310	Soap package	1941-12-23
D9	US 3,159,274	Rigid package structure	1964-12-01
D10	US 3,329,258	Multiple object visual pack	1967-07-04

6. Evaluación de los requisitos de patentabilidad:

El artículo 14 de la Decisión 486 de la Comunidad Andina establece que: *“Los Países Miembros otorgarán patentes para las invenciones, sean de producto o de procedimiento en todos los campos de la tecnología, siempre que sean nuevas, tengan nivel inventivo y sean susceptibles de aplicación industrial”*.

En cumplimiento del artículo 14 de la Decisión 486, se procedió a evaluar los requisitos de novedad, nivel inventivo y aplicación industrial con el fin de establecer la patentabilidad del objeto de la solicitud reivindicado en la solicitud en estudio.

A. Evaluación de la Novedad:

El artículo 16 de la decisión 486 de la Comisión de la Comunidad Andina establece:

“Una invención se considerará nueva cuando no esté comprendida en el estado de la técnica.” “El estado de la técnica comprenderá todo lo que haya sido accesible al público por una descripción escrita u oral, utilización, comercialización o cualquier otro medio antes de la fecha de presentación de la solicitud de patente o, en su caso, de la prioridad reconocida.”

1. D1 describe un jabón que tiene bolsillos donde se puede escribir publicidad. El jabón está envuelto en un empaque transparente.
2. D2 describe un jabón que contiene un juguete adentro de él. El jabón va en un empaque transparente que permite ver el jabón y el juguete.
3. D3 divulga un jabón envuelto en un contenedor de dos partes, una superior y otra inferior, el cual es transparente u opaco pero con una ventana transparente que permite ver la marca.
4. D4 muestra una barra transparente de jabón en un contenedor plástico transparente. Dicho contenedor permite ver la marca del jabón.
5. El documento D5 revela una envoltura en forma de bandeja, la cual puede ser considerada “miembro de refuerzo” y que además puede ser transparente.

6. El documento D6 describe un jabón que se sumerge en una laca para formar una cubierta plástica transparente que es rígida.
7. El documento D7 divulga un jabón envuelto en una película de laca y un endurecedor que es una tarjeta. El endurecedor va envuelto alrededor del jabón y juntos el jabón y el endurecedor van envueltos en un empaque transparente.
8. D8 describe una barra de jabón envuelta en un papel de envoltura que tiene a un lado un revestimiento de resina vinílica resistente a la humedad. El revestimiento puede ser transparente.
9. D9 describe un empaque rígido para jabones que permite observar las superficies más anchas del jabón. Además, se menciona un empaque transparente que envuelva ambos el jabón y el empaque rígido.
10. D10 divulga un jabón que viene en una bandeja transparente.

B. Evaluación del nivel inventivo:

El artículo 18 de la Decisión 486 de la Comisión de la Comunidad Andina dispone que: "Se considerará que una invención tiene nivel inventivo, si para una persona del oficio normalmente versada en la materia técnica correspondiente, esa invención no hubiese resultado obvia ni se hubiese derivado de manera evidente del estado de la técnica".

Caracterizar el objeto de la reivindicación independiente por ser transparente no puede ser una solución para el problema técnico planteado, el crecimiento de hongos, sino una cuestión de apariencia.

A partir de cualquiera de los documentos encontrados en el estado del arte un técnico medio en la materia habría derivado de manera evidente todas y cada una de las características del objeto de la solicitud que no se especificaron abiertamente en dichos documentos. Concretamente, en la descripción sólo se comparó el empaque objeto de la solicitud con empaques de cartulina, mientras que en el estado de la técnica ya se habían utilizado empaques rígidos plásticos. No hay ningún estudio en la descripción que demuestre un mejor resultado fungicida dependiente de la rigidez de la envoltura ni del espesor de la película. Se demuestra únicamente que el crecimiento de hongos y la conservación de la humedad dependen sólo del material plástico de la envoltura.

Por lo tanto, la solicitud en estudio no cumple con el requisito de nivel inventivo establecido por el artículo 18 de la Decisión 486.

B. Resumen

En conclusión los requisitos de patentabilidad de la presente solicitud podrían encontrarse afectados así:

No.	Documento	Reivindicaciones afectadas	Requisito afectado
D1	US 1,657,391	1 a 22	Novedad y nivel inventivo
D2	US 5,183,429	1 a 22	Novedad y nivel inventivo

No.	Documento	Reivindicaciones afectadas	Requisito afectado
D3	US 3,149,188	1 a 22	Novedad y nivel inventivo
D4	US 4,754,874	1 a 22	Novedad y nivel inventivo
D5	US 4,406,364	1 a 22	Novedad y nivel inventivo
D6	DE 1914415	1 a 22	Novedad y nivel inventivo
D7	US 2,155,668	1 a 22	Novedad y nivel inventivo
D8	US 2,267,310	1 a 22	Novedad y nivel inventivo
D9	US 3,159,274	1 a 22	Novedad y nivel inventivo
D10	US 3,329,258	1 a 22	Novedad y nivel inventivo

Se anexa copia de las anterioridades mencionadas.

7. Notificación

En cumplimiento del artículo 45 de la decisión 486 de la Comisión de la comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta días contados a partir de la fecha de la notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e) del capítulo quinto del título primero de la circular única No. 10 de 2001.

Clara C. Castellanos de Jaimes

CLARA C. CASTELLANOS DE JAIMES
Jefe de la División de Nuevas Creaciones (E)

El anterior requerimiento, fue notificado por fijación en lista, de fecha 15 DIC. 2005.

CONCEPTO TÉCNICO Número: 1881	EXAMINADOR TÉCNICO Código: 202043
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Patented Jan. 24, 1928.

1,657,391

UNITED STATES PATENT OFFICE.

JOHN CLIFFORD HANEY, OF PHILADELPHIA, PENNSYLVANIA.

SOAP CAKE.

Application filed February 15, 1927. Serial No. 168,435.

This invention relates to improvements in articles of soap manufacture, having for an object to provide a highly novel form of soap cake wherein a convenient arrangement of pocket is had, into which sheets or pamphlets of advertising, direction and other matter may be placed or positioned, whereupon, a wrapper is engaged about the whole, thus effecting packaging of the same without lending to or increasing the bulk and thereby avoiding detracting from the packing space economy of the article.

It is also amongst the principal desiderata of the invention to provide a soap cake having a matter receiving pocket in one side wherein such matter as may be placed therein will be protected against mutilation and also, will be prevented from adhering to the bottom proper of such pocket with the usually resultant destruction or mutilation of the matter during removal by reason of the limiting of area of contact of said matter with the soap cake surface, hence, enabling a user to readily and freely remove the advertising, direction or other matter from the pocket.

Other objects of the invention will be in part obvious and in part pointed out hereinafter.

In order that the invention and its mode of operation may be readily understood by those skilled in the art, I have in the accompanying illustrative drawings and in the detailed following description based thereupon, set out one possible embodiment of the invention.

In these drawings:

Figure 1 is a perspective view of the improved soap cake showing the manner in which the sheets or pamphlets of advertising or direction matter are retained within the pocket and also, the manner in which the soap cake together with the said matter is packaged and

Figure 2 is an enlarged transverse section through the cake and its packaging covering.

Having more particular reference to the drawings, in connection with which like characters of reference will designate corresponding parts throughout, it will be noted that the opposite sides or faces of the soap cake 1 are provided with depressed pockets 2, generally conforming in contour to that of the said cake 1, while the bottoms proper of each of these pockets 2 have certain intelligence or words presented upon the same

by molding thereupon various letters as designated by the numeral 3, these letters, as will be noted upon reference to the Figure 2, being of the raised or cameo character, hence, having their outer marginal portions or faces spaced outwardly or beyond the bottoms proper of the several pockets 2, yet within or below the outer faces or sides of the soap cake proper, as is also shown in the Figure 2.

Sheets or pamphlets of advertising with direction or other matter generally indicated by the numeral 4 are adapted to be received within one or both of the pockets 2, it being preferably but not necessary that the general shape or method of folding of said matter shall conform to the outline of the pocket or pockets receiving it as is indicated in the Figure 1, and likewise, that the thickness of such matter shall be such that the upper side thereof will lie approximately flush with the adjacent face portion of the corresponding side of the soap cake 1.

With placement or positioning of the matter 4 in one or both of the pockets 2, it will be observed, upon reference to the Figure 2, that the lower side of this matter will rest upon or be engaged with the outer space or marginal portions of the raised letters 3 distributed throughout or over the area of the bottoms proper of said pockets 2 and consequently thereupon, that the major portion of said side of the matter 4 will be prevented from having contact with the bottom proper of its particular receiving pocket. In this way, it will be understood and appreciated that the area of contact of the matter 4 with the bottom of the pocket receiving it will be minimized and therefore, that the liability of adhesion of such matter to the soap cake will be materially lessened and furthermore, will permit of free and convenient removal of said matter 4 from the pocket subsequent to removal of the wrapper (hereinafter more fully described) from the soap cake. Furthermore, it should be noted at this particular point, that by reason of the limiting of the area of the contact of the matter 4 with the bottom of the pocket 2 receiving it in the soap cake, the soiling of the contacting surface of the soap by the transfer of ink thereonto from the intelligence printed upon the matter 4 will be minimized.

For obvious reasons, it is preferable that the soap cake 1 with the matter 4 will be

packaged and to effect this, a wrapper consisting of a piece of transparent material, designated by the numeral 5 is engaged about the soap cake in the fashion as is clearly shown in the accompanying drawings, the free portion or end flaps of the wrapper sheet being suitably joined by adhesive or other suitable material, while a sticker label or similar device is joined or attached to that particular side of the wrapper 5 overlying the pocket 2 in which the matter 4 is received, hence, concealing such matter from view and thereby lending to the sales appearance of such article. In this connection, it will be noted that the sticker label or similar device 6 is engaged over the meeting marginal portions of the wrapper 5, as illustrated in the Figure 1 and therefore, that it not only serves as a means for concealing said matter 4 but also, as a means for preventing any relative movement as between the covered marginal portions of the wrapper sheet 5 and hence, insures an effectual packaging of the soap cake 1.

Manifestly, the construction shown is capable of considerable modification and such modification as is within the spirit of my claims, I consider within the spirit of my invention.

I claim:

1. An article of manufacture comprising a soap cake having a pocket in one side thereof adapted to receive certain matter therein, a wrapper for said cake consisting of a transparent sheet snugly arranged thereabout, and an opaque sheet like device joined to a portion of the wrapper overlying the adjacent free portions of the same and the matter in said pocket whereby to fasten the former and to conceal the latter from view.

2. An article of manufacture comprising a soap cake having a pocket formed in one side thereof adapted to receive certain matter therein, the bottom of said pocket having portions thereof throughout its area formed in cameo effect and integral with said pocket bottom and directly contacting with the matter in the pocket whereby to limit contact of such matter with the soap cake, a wrapper for said cake consisting of a transparent sheet snugly arranged thereabout, and an opaque sheet like device joined to a portion of the wrapper overlying the adjacent free portions of the same and the matter in said pocket whereby to fasten the former and to conceal the latter from view.

In witness whereof I have hereunto set my hand,

JOHN CLIFFORD HANEY.

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R13

Jan. 24, 1928.

J. C. HANEY

1,657,391

SOAP CAKE

Filed Feb. 15, 1927

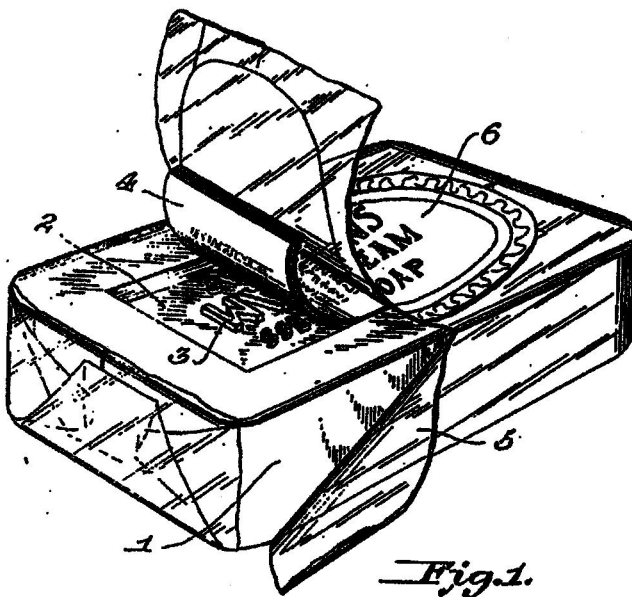


Fig. 1.

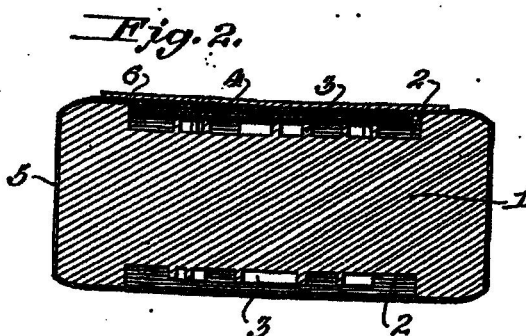


Fig. 2.

Inventor

J. C. Haney.

384 William C. Linton.

Attorney

United States Patent [19]
Bitton

[11] Patent Number: 5,183,429
[45] Date of Patent: Feb. 2, 1993

[54] CHILDREN'S TOY AND BOTH SOAP
ASSEMBLY

[76] Inventor: Mary K. Bitton, 18433 Hatheras St.
#508, Tarzana, Calif. 91356

[21] Appl. No.: 738,338

[22] Filed: Jul. 31, 1991

[51] Int. Cl.³ A63H 33/00; A63H 3/00;
C11D 17/00

[52] U.S. Cl. 446/73; 446/75;
252/92

[58] Field of Search 446/71-73,
446/75, 76; 252/42, 134, 93

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.627622	8/1949	United Kingdom	446/71

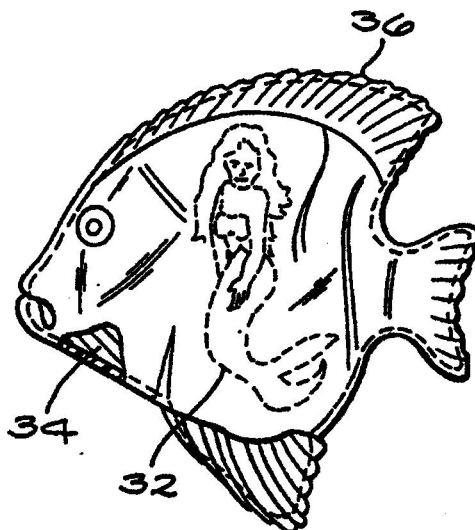
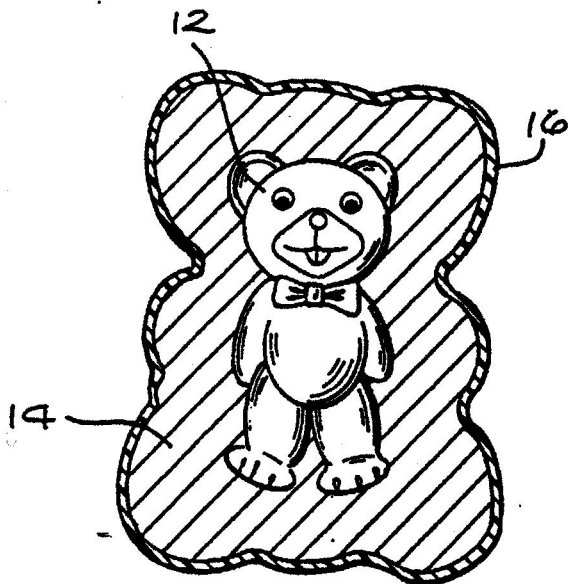
Primary Examiner—Mickey Yu

Attorney, Agent, or Firm—Poms, Smith Lande & Rose

[57] ABSTRACT

A small toy or figurine is located inside a transparent body of soap. The soap fully surrounds and encapsulates the small toy. The small toy is completely visible within the body of soap. The body of soap is shaped like a figurine or is in another form which may complement or conform to the shape of the inner toy. A clear or colored plastic container whose shape matches the shape of the body of soap serves as a container for the soap and may also serve as a soap dish. The body of soap is placed inside the plastic container. The small toy incased within the body of soap is visible from outside the plastic container once the body of soap is placed inside the plastic container.

14 Claims, 2 Drawing Sheets



CHILDREN'S TOY AND BOTH SOAP ASSEMBLY

FIELD OF THE INVENTION

The present invention generally relates to soaps, especially transparent or translucent soaps, combined with children's toys.

BACKGROUND OF THE INVENTION

Children have always exhibited a great propensity and ability for getting dirty. Children are also notorious for not wanting to bathe, and judiciously avoiding the use of soap.

Most children have a highly active imagination and like to play with toys and other figurines. Numerous attempts have been made to entice children to play with soap by crafting the soap in the shape of a figure or toy. Numerous color schemes have also been used in an attempt to entice children to use soap.

Swartz in U.S. Pat. No. 2,677,913, attempted to entice children to play with soap in which a figurine was partially embedded. The head and feet of the figurine protruded from opposite ends of the soap, but was otherwise hidden from view until the soap was used up and the figure exposed. Because the figurine was largely encased in soap, with only head and feet protruding, there was little incentive for a child to use the soap in order to gain access to the figurine.

United Kingdom Patent No. 627,622 tried to provide incentive to a child to use soap by placing a waterproof capsule containing a tiny toy in a transparent or opaque bar of soap having a conventional rectangular shape. The child could see the tiny toy and/or hear a rattle within the container, thereby realizing that this particular bar of soap contained within it a capsule and a tiny toy. However, with the shape of the soap bar being rectangular, and the toy being very small, and no special exterior container, the interest in the soap by the child was minimal. In passing, it is interesting to note how very small the toy actually is in the U. K. patent, in that, for example, the thickness of the soap around the toy is substantially greater than the size of the toy itself.

SUMMARY OF THE INVENTION

It is the object of this invention to get children to want to bathe, wash and play with a body of soap. It is also an object of this invention to provide the incentive for getting children to want to bathe, wash and play with a body of soap. It is a further object of this invention to provide this incentive from the moment a child selects a body of soap to be purchased until the body of soap is substantially used up. It is an additional object of this invention to provide children with a reward for having used up substantially an entire body of soap. Additionally, it is an object of this invention to provide an attractive storage container for the body of soap, and for the reward once the body of soap has been used up.

Preferably, the container is also transparent so that the toy is visible through the container and the transparent shape to encourage sales and use of the product. The toy is large enough to be clearly visible through the container, and large enough that it cannot be swallowed by a child.

CHILD SAFE SIZE

It is also an object of the present invention to insure that all toys or figures embedded in a body of soap fully comply with present child safety standards as to the size

of the toy, its composition, and appendages. Specifically, the size of the toy is such that it will not fit into a circular tube with an inside diameter of $\frac{1}{4}$ of an inch or less.

It is desirable that the toys are quite large relative to the size of the body of soap, and thus, for example, that the thickness of the soap to the toy be less than the maximum dimension of the toys in at least some areas of the assembly.

These and other objects, advantages, and features of the present invention will become readily apparent to those skilled in the art from the following Description of an Exemplary Preferred Embodiment when read in conjunction with the attached Drawings and appended Claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a toy assembly including a transparent body of soap shaped like a bear which has embedded in it a toy bear and including an outer transparent housing matching the contained toy;

FIG. 2 is a cross-sectional view of the assembly of FIGS. 1;

FIG. 3 shows a toy assembly including a body of soap in the shape of a fish in which is encapsulated a mermaid;

FIG. 4 shows a toy assembly including a body of soap in the shape of a heart in which is encapsulated a toy mouse;

FIG. 5 shows a toy assembly including a body of soap in the shape of a heart in which is encapsulated a mermaid;

FIG. 6 shows a toy assembly including a body of soap in the shape of a car in which is encapsulated a toy in the shape of a duck;

FIG. 7 shows a toy assembly including a body of soap in the shape of a star in which is encapsulated a toy depicting a young girl; and

FIG. 8 shows a toy assembly including a body of soap in the shape of a dinosaur in which are encapsulated two toys, both toy dinosaurs.

DESCRIPTION OF THE EXEMPLARY PREFERRED EMBODIMENT

The preferred embodiment of the invention consists of a waterproof toy, or figurine 12 which is encapsulated in a body of transparent soap 14. The entire toy or figurine is fully visible through the soap. The body of soap itself is irregular, in the shape of an object or depiction designed to encourage children to play with it. The shape of a bear (FIGS. 1 and 2), or teddy bear, fish (FIG. 3), heart (FIGS. 4 and 5), car (FIG. 6), star (FIG. 7), and dinosaur (FIG. 8) are examples of soap shapes which have been implemented.

The body of soap itself is further encased in a transparent soap container 16 made of plastic. This soap container may be formed of upper and lower matching portions which fit together to form a complete container. The shape of the soap container is irregular, and conforms to the shape of the body of soap. The soap container serves as a soap dish, as well as a toy, and storage container for future use. In addition, the transparent nature of the soap container allows a child to fully view the toy encapsulated within the body of soap. This allows a child to effectively select the toy, or reward he is to receive after he has substantially used up the body of soap. This provides incentive for the child

to bathe, wash and play with the body of soap in an effort to more quickly access the toy he desires which is contained within the body of soap. The soap container can also be colored or tinted to accent or highlight features of the toy or the shape/design of the body of soap.

The configuration of the body of soap is selected to conform to the shape of the toy of figure or complement the shape of the toy or figure. In conforming to the shape of the toy, the soap container, and body of soap will have a shape either identical to or substantially matching the shape of the toy or figurine contained within the body of soap. For example, FIGS. 1 and 2 illustrate the depiction of a toy bear 12 contained within a body of 14 which is formed in the shape of a bear. Note that the toy bear is upright and depicts a bear walking, whereas the shape of the body of soap, and container 16 depicts a bear which is seated on its hind legs. The shape of the body of soap conforms to the shape of the toy.

The configuration of a body of soap and container can complement the shape of the toy contained within the body of soap. FIG. 3 depicts a toy in the shape of a mermaid 32 which is encased within a body of soap 34 depicting a fish. The mermaid toy or figurine and body of soap depicting a fish complement one another. Especially in the eyes of a child, both are associated with creatures that live under water. The configuration shown in FIG. 4 depicts a toy in the shape of a mouse 42 contained within a body of soap 44 and placed in soap container 46 which is formed in the shape of a heart. Additional configurations include FIG. 5 in which a toy in the shape of a mermaid 52 is encapsulated within a body of soap 54 and placed in a soap container 56 which is in the shape of a heart. The configuration in FIG. 6 depicts a toy in the shape of a duck 62 encapsulated in a body of soap 64 which is placed in a container 66 which is formed in the shape of a car. The configuration shown in FIG. 7 depicts a toy in the shape of a girl 72 encapsulated within a body of soap 74 and placed in a container 76 which is formed in the shape of a star. The depiction shown in FIG. 8 shows two toys in the shape of dinosaurs 81 and 82 encapsulated within a body of soap 84 and placed within a soap container 86 which is formed in the shape of a different dinosaur.

The figurine or toy placed within a particular body of soap may be selected independently of the shape of the body of soap itself, but preferable there is a match of one sort or another between the toy and the shape of the soap and of the container, either conforming or complementing one another.

There has been described hereinabove a novel toy embedded in a body of soap. Those skilled in the art may now make numerous uses of the above described embodiment without departing from the inventive concepts. Thus, by way of example but not of limitation, the translucent soap may be tinted with a color as desired, and the container may not be entirely transparent, but may be provided with a transparent viewing window or cover and may be otherwise opaque. It is also noted that the soap and toy assembly may be wrapped or enclosed in a clear flexible transparent wrap, in place of the soap container. Accordingly, the present invention is not limited to the specific embodiments disclosed in the drawings and the foregoing detailed description.

I claim:

1. A child's toy and soap assembly comprising:

a waterproof toy having a predetermined irregular three dimensional configuration and predetermined minimum and maximum dimensions;

a body of transparent soap directing engaging and entirely encompassing and encapsulating said waterproof toy, said body of soap having a thickness from its exterior surface to the toy which is less than said maximum dimension in at least one area; a transparent soap container having a configuration which is matched to the configuration of said body of soap;

said body of soap substantially filling said container; said soap container being either clear or colored; said body of soap having an exterior configuration substantially conforming to or complementing the configuration of the encapsulated toy; said body of transparent soap and said transparent soap container structured such that the entire waterproof toy is directly visible within said body of soap and transparent soap container; and the shape of said soap container conforming to the shape of said toy.

2. A child's toy and soap assembly as described in claim 1 in which said body of soap is colored or tinted.

3. A child's toy and soap assembly as described in claim 1 in which said container is colored and said body of soap is colored or tinted.

4. A child's toy and soap assembly as defined in claim 1 wherein said toy is of substantial size so that it will not fit into a tube which has an inner diameter of $\frac{1}{4}$ inch.

5. A child's toy and soap assembly comprising:

a waterproof, inedible, non-metallic toy having a predetermined irregular three dimensional configuration;

a body of transparent soap directly engaging and entirely encompassing and encapsulating said waterproof toy;

a soap enclosure which is at least partially transparent, said soap enclosure having a configuration which complements the configuration of said body of soap;

said body of transparent soap and said soap enclosure being structured such that the toy is directly visible within said body of soap and said soap enclosure; said toy being of substantial size so that it will not fit into a tube which has an inner diameter of $\frac{1}{4}$ inch; said toy having predetermined maximum and minimum dimensions and said body of soap having a thickness from its exterior surface to the toy which is less than said maximum dimension in at least one area; and

said soap enclosure having a shape conforming to the configuration of said toy.

6. A child's toy and soap assembly as described in claim 5 in which said enclosure is colored or tinted.

7. A child's toy and soap assembly as described in claim 5 in which said body of soap is colored or tinted.

8. A child's toy and soap assembly as described in claim 5 wherein said body of soap has an exterior configuration substantially conforming to or complementing the configuration of the encapsulated toy.

9. A child's toy and soap assembly as defined in claim 5 wherein said soap enclosure comprises upper and lower matting portions.

10. A child's toy and soap assembly as defined in claim 9 in which said body of soap substantially fills said enclosure.

11. A child's toy and soap assembly comprising:

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a waterproof, inedible, non-metallic toy having a predetermined configuration;
said toy having an irregular three-dimensional configuration at least including the form of a figure;
a body of transparent soap directly engaging and entirely encompassing and encapsulating said toy;
a soap enclosure which is at least partially transparent, said soap enclosure having a configuration which complements the configuration of said body of soap;
said body of transparent soap and said soap enclosure being structured such that the toy is directly visible within said body of soap and said soap enclosure;
said toy being of substantial size so that it will not fit into a tube which has an inner diameter of $\frac{3}{4}$ inch;

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said toy having predetermined maximum and minimum dimensions and said body of soap having a thickness from its exterior surface to the toy which is less than said maximum dimension in at least one area; and said soap enclosure has a configuration which is in the shape of a figure or a vehicle.

12. A child's toy and soap assembly as defined in claim 11 wherein said soap enclosure comprises upper and lower matting portions.

13. A child's toy and soap assembly as defined in claim 11 wherein the toy is in the form of an animal figure.

14. A child's toy and soap assembly as defined in claim 11 wherein the toy is in the form of the figure or a person.

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MANUFACTURE OF READY-TO-USE CAKES OF SOAP AND LIKE CLEANSING MATERIALS

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2 Claims. (Cl. 264-267)

The present invention relates to a method of producing ready-to-use pieces of skin cleansing materials, such as soaps and detergents, and is more particularly applicable to the production of cakes of transparent soap.

The production of ready-to-use cakes of soap has caused many difficulties and, in the case of transparent soap, they have been so great that this novelty-type soap has almost disappeared from the market despite its considerable sales appeal. The production difficulties are inherent in the properties of transparent soap.

As is known, the transparency of transparent soaps is achieved by a special selection and/or combination of fats, oils or fatty acids as soap components. Furthermore, such soaps contain compounds having one or more alcohol groups, for instance, glycerol, carbohydrates, solvents, etc. This composition of transparent soaps has necessitated the following manufacturing procedure:

The liquid soap base was poured into large molds wherein it was permitted to cool into a rigid soap block. After removal from the molds, the soap blocks were aged for two to three months by storing them in dark and cool cellars to harden the soap. This hardening process was necessary because the soap could not be formulated hard enough without interfering with the clean cutting of the blocks into bars, which is done with thin steel wires. During the aging of the relatively soft soap blocks, volatile soap components, such as aromatic substances and alcohols, were lost. Furthermore, the soap blocks dried unevenly since their surface portions dried more rapidly than the interior portions. This unevenness in the drying of the blocks caused the outer soap portions to lose more of the volatile components than the inner portions and also led to clouding of the transparent soap.

The aged soap blocks were cut into bars, the bars were aged some more and the aged bars were cut into pieces which served as blanks for the final pressing operation in which the finished cakes of transparent soap were formed. Before pressing, the blanks had to be kept in special conditioning rooms at temperatures of about 37° C. to 42° C. and a relative humidity of about 30%, to make them suitable for pressing. Mold burrs then had to be removed from the pressed pieces and their surfaces were polished with soft cloths moistened with a glycerol solution to obtain the ready-to-use cakes of transparent soap.

It is obvious from the above description that the conventional manufacturing method of making transparent soap bars is very cumbersome, time-consuming, and expensive, in addition to which it has the following disadvantages:

During the long storage periods encountered in the manufacture of the soap pieces, the soap is subjected to considerable shrinkage. Even after finishing, the ready-to-use soap tends toward further shrinkage unless it is packed in special, moisture-impermeable envelopes or containers. This shrinkage entails further losses of aromatic and other volatile soap components. It also causes the smooth surface of the cakes of soap to become deformed and thus diminishes the eye appeal of the article. It may be noted, in this respect, that surface smoothening and polishing is generally a difficult matter in the production of toilet soap. However, while regular, non-transparent soaps usually maintain their smooth surfaces even during

extended storage periods, the particular tendency to shrink is a peculiar characteristic of transparent soaps.

Other difficulties encountered with transparent soaps are due to the influence of the surrounding air. High humidity or moisture causes sweating and softening of the outer layer of the transparent soap cake to a smeary unattractive mass. Oxygen oxidizes its ethereal oils. Carbon dioxides combined with oxygen produces a rancid aroma in the soap.

Finally, despite the long aging periods during the manufacturing process, commercially available transparent soaps are relatively soft and are, therefore, rapidly used up.

Due to the process of pressing the soap blanks into final shape, it has not been possible to make any but substantially rectangular transparent soap pieces with slightly rounded edges in an economical manner, thereby avoiding excessive waste in base soap and hand labor during the process of cutting, shaping, or preforming the blank as closely as possible to the final desired shape. No economical and commercially feasible process was available for making transparent soap pieces in the most popular shapes, such as round, oval or hand-conforming cakes.

It is a principal object of the present invention to overcome the above described disadvantages in the manufacture of ready-to-use cakes of transparent skin cleansing materials, such as transparent soap.

It is a concomitant object of the invention to manufacture cakes of transparent soap which retain their desirable properties over extended periods of storage.

It is a further object of the present invention to provide a suitable casting mold container for transparent soap.

The above and other objects in accordance with the present invention are accomplished by casting a liquid mass of a castable soap or detergent into a mold which is designed to serve as a package or container for the ready-to-use cake and subjecting the liquid mass in the mold to cooling whereby the mass solidifies into a cake having the contour of the mold.

In accordance with one preferred feature of the present invention, the molds are air-tightly sealed after casting, whereby the solidified cake in the mold is protected from the atmosphere during storage. In this manner, shrinkage is prevented, the surface of the cake remains smooth and no loss of aromatic or other volatile components takes place. The deleterious effect of oxygen, carbon dioxide, and moisture is entirely removed.

According to another preferred feature of the present invention, the casting mold consists of a suitable plastic having smooth interior or mold surfaces or produce a desirable surface smoothness of the cast soap. Plastic molds with smooth surfaces may be cheaply mass-produced and may have the added advantage of including flexible wall portions whose depression will facilitate the removal of the ready-to-use cake from the mold. If required, the inner mold surface is provided with a very light coating of a suitable mold release agent, such as a silicone resin or a high melting wax of a melting point of 50-60° C. to facilitate separation of the soap cake from the inner mold walls.

The above and other objects, features and advantages of the present invention will be more fully exemplified in the following detailed description of certain embodiments thereof, taken in conjunction with the accompanying drawing, wherein—

FIG. 1 schematically illustrates the manufacture of cakes of soap and detergents according to the invention;

FIG. 2 is a section along line II-II of FIG. 4 of one embodiment of a casting mold useful in the method of the invention;

FIG. 3 is an end view of the mold of FIG. 2;

FIG. 4 is a top view of the mold of FIGS. 2 and 3;

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FIG. 5 is a side view, partly in section, of another embodiment of a casting mold with a preferred sealing means;

FIG. 6 is a side view of yet another embodiment of a casting mold with depressable, arcuate wall portions;

FIG. 7 is a perspective view, partly in section, of a casting mold having a transparent wall portion.

Referring now to the drawing, FIG. 1 shows a storage tank 1 for a molten mass of castable soap or detergent. A duct 2 connects the filling funnel or hopper 4 with the storage tank, the flow of the liquid mass being controlled by valve 3.

Molds 6 (more fully illustrated in FIGS. 2 to 4) are held on conveyor band 5 which moves each mold into alignment with the nozzle of hopper 4, in the direction of arrow 9, so that the liquid mass may be cast into the mold through an inlet opening 13. After the mold has been completely filled with the liquid mass, it is moved on to apparatus 7, which may be any suitable device for sealing the inlet opening. After sealing, the mold is moved further into cooling chamber 8 where the molten mass in the mold is solidified.

In actual practice, a temperature of between about 65° C. and 70° C. for the molten mass during casting has been found to be suitable. While cooling for purposes of solidification of the cast mass in the molds could be effected at room temperature, the present invention provides a special cooling chamber to accelerate the process, the temperature of the cast mass being reduced in the cooling chamber to about 40° C. in a period of about 10 minutes.

One form of a useful mold for the practice of the invention is illustrated in FIGS. 2 to 4. As shown, the two-part mold consists of a lower mold portion 11 and an upper mold portion 10 whose respective rims 11a and 10a overlap when the upper mold portion is united with the lower mold portion. The mold portion rims are perforated at one side to form a relatively small inlet opening 13 permitting the liquid mass to be cast into the mold. An inlet opening of about one fifth of the thickness of the mold, i.e., for instance, of about three to seven millimeters in diameter, has been found satisfactory for the casting method according to the present invention.

The illustrated mold also has two like legs 14 symmetrically arranged at each side of the inlet opening, which enable the mold to be stood up on its side when it is used by the consumer as a container for the cake of soap. Preferably each mold portion 10 and 11 is also provided with two projections 14a opposite to the legs 14. Said legs 14 and the projections 14a extend, as indicated in FIGS. 2 to 4 from the rim portions 10a and 11a towards the center of each mold portion 10 and 11. They reinforce the rims of the mold portions at the places where they are attached to the mold and, thus, facilitate separation of the mold portions from each other when opening the mold to use the soap cake.

As shown, the mold is circular and has arcuate molding surfaces merging on top and bottom into recessed, flat surface portions 12 and 15 in the center of the mold portions 10 and 11. As will be explained more fully in connection with FIG. 7, the center portions 12 and 15 may be transparent while the remainder of the mold is opaque. Also, these flat portions may serve as pressure points which may be depressed to facilitate removal of the soap from the mold during use.

Any moisture-impermeable material of natural or synthetic origin may be used for the mold, plastics which may be molded or shaped into semi-rigid or rigid bodies being preferred. Such plastic molds may be transparent, translucent, opaque, white, or colored. Useful plastics include polyethylene, polyvinyl chloride and its copolymers, cellulose acetates, cellulose nitrates, ethyl and propyl cellulose, polystyrene, methacrylate polymers, polyamides, phenol formaldehyde resins, amino resins, melamine resins, natural and synthetic rubbers, and like materials.

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Polyethylene and polyvinyl chloride resins have been found to be most suitable.

It is obvious that the shape of the mold will depend only on the desired shape of the cake of soap to be cast therein. Thus, instead of being circular, the mold may be oval, rectangular or of any other desired configuration. The thickness of the mold may vary between 0.5 mm. and 0.7 mm. for instance. Preferably the thickness of the mold portions gradually decreases from its rim towards its center so that it can be depressed more readily by applying pressure to the center parts of the mold portions.

The inlet opening 13 may be sealed after casting merely by placing a stopper thereinto. If the mold and the stopper are, for instance, of synthetic resin, the stopper may be fixed to the mold by autogeneous bonding or by means of a suitable adhesive, as is well known in the art of bonding together plastic bodies.

Instead of a stopper, a simple platelet may be placed over the opening and fixed thereover to effect the desired sealing.

One form of sealing is illustrated in FIG. 5. As shown therein, the mold portions 21 and 22 are generally similar to the mold embodiment of FIGS. 2 to 4. The seam 23 formed at the abutment of the overlapping mold portion rims is sealed in this case with an adhesive band 24 which may be readily torn off to make it possible to lift upper mold portion 21 off lower mold portion 22, to remove the soap cake from the mold, when the consumer is desirous of using the soap, and to put it back into the mold for storage. The advantage of this embodiment lies in the fact that the adhesive band 24 provides a very simple and economical means for air-tightly sealing the mold after casting and eliminates, therefore, the necessity for the rims of the mold portions to fit too tightly, thus facilitating their separation when the mold serves as a soap container during use of the soap.

FIG. 6 shows a modified mold constituted by upper mold portion 25 fitted onto lower mold portion 26, similarly as in the previously described molds. The mold portions have central dome portions 27 and 28 which, upon depression, will facilitate the removal of the soap from a mold portion. This may be of particular advantage at the first use of the soap. After the two-part mold container is opened by the consumer, he may find the cast soap to stick somewhat to the upper or the lower mold portion. In this case, light pressure on dome 27 or 28 will readily separate the soap from the mold wall to which it adheres.

FIG. 7 illustrates another two-part mold consisting of upper mold portion 29 and lower mold portion 30 holding a cake of transparent soap 31. In this case, the mold is opaque, except for a central transparent window 43 which makes it possible to read the legend 33 on label 32 embedded in the soap. The legend may consist of a trademark or any other designation.

Alternatively, the legend 33 may be molded into the mold portion itself, thereby forming a corresponding legend to be cast into the soap and eliminating the necessity of placing a desired description or ornamentation on the surface of the soap after its formation, as has been done heretofore.

The considerable advantages of the present method and molds will partly be obvious from the above description and will be more fully elucidated hereinafter. From a point of view of economy, the present invention eliminates the long aging periods of transparent soap in blocks, the cutting of the blocks into bars, the further aging of the bars, the cutting of the bars into blanks, the aging of the blanks and the pressing of the softened blanks into the final cake form. It also obviates removal of mold burrs and polishing of the surface of the finished cakes if the inside molding surfaces of the casting molds are smooth.

Being sealed in its casting mold, the transparent soap produced in accordance with the present invention does not shrink, retains its aromatic and other volatile com-

ponents, and has a smooth surface. Since air, i.e. oxygen and carbon dioxide, are excluded from the sealed mold container of this invention, the soap may be stored in the mold containers indefinitely and regardless of the storage conditions, such as temperature, moisture, etc.

The soap may be cast into any desired form, including oval, round and hand-conforming shapes and complex configurations of combined flat and arcuate surfaces.

The manufacturing costs are lower than with conventional methods and the casting mold, which serves as packing and container for the cast soap, is no more expensive than would be any conventional packing or container.

Most importantly, since no cutting of the soap is involved, a transparent soap produced according to the invention may be cast from a composition giving a harder soap than could be obtained heretofore. Such a harder soap will be much more economical in use than a soft soap while giving a good and fast lather.

As is known, the hardness of the soap may be controlled by a suitable selection of the fatty and oily components in the soap. Thus, soaps richer in higher melting fatty acids, like myristic acid, palmitic acid, or stearic acid, will be harder than soaps containing a larger percentage of lower melting fatty acids, such as oleic acid, ricinoleic acid or linoleic acid. The desired degree of hardness may be obtained by varying the proportions between the fatty acid components. Generally, the median melting point of the fatty components is selected to lie between about 30° C. and 45° C., preferably about 40° C.

The casting method of the present invention not only makes it practically possible to produce a transparent soap of increased hardness but makes this desirable since a relatively soft soap could not be cleanly released from the mold container without impairing its smooth surface.

It is, of course, understood that the transparent soap base may have admixed thereto suitable detergents, anionic or non-ionic surface active agents, wetting agents, lathering agents, deodorants, emulsifiers, and the like provided these additives do not substantially impair the transparency and castability of the transparent soap bars.

Merely for purposes of illustration and without in any way limiting the invention thereto, the following examples give some formulations found useful for casting in accordance with this invention:

Example 1

100 lbs. of transparent soap were prepared according to the following formulas, I indicating a soft soap which, although suitable for the purpose of the present invention, is less desirable due to its softness, II indicating a suitable medium hard transparent soap, and III indicating a suitable hard transparent soap:

	I, pound	II, pound	III, pound
Caster oil	12	10	8
Coconut oil	20	20	20
Tallow	10	12	6
Oleostearin			8
Caustic soda (38° B _é)	21	21	21
Glycerol (28° B _é)	6	6	6
Cane Sugar	10	9	8
Alcohol	18	16	18
Water	8	7	8

Perfumes and/or spirit-soluble colors may be added according to conventional requirements. Saponification was effected in the usual manner and the molten soap was cast into molds, such as illustrated in the accompanying drawing. Clearly transparent medium hard and hard soap cakes were obtained.

Example 2

A castable transparent cleansing material was made with natural fats and oils in combination with a synthetic, anionic surface active compound, according to the following formula:

	Pounds
Sodium lauryl sulfate	8
Tallow	20
Coconut oil	20
Caustic soda (38° B _é)	20
Glycerol (28° B _é)	13
Alcohol	14
Water	5
	100

The above cleansing material was cast according to the invention. The same results were obtained if the sodium lauryl sulfate was substituted by any anionic higher fatty alcohol sulfate, alkyl aryl sulfonate, alkyl arylamine sulfonate, sodium alkyl sulfonate, or sulfated and sulfonated amides.

Example 3

A similar castable transparent cleansing material as in Example 2 was prepared by replacing the anionic compounds by non-ionic surface-active compounds, such as polyhydric alcohol higher fatty acid esters, amide condensates such as the alkylamides of lanolic acids, or polyethylene oxide alkyl phenols, the following formulation being typical:

	Pounds
Sorbitan monolaurate	8
Tallow	6
Oleostearin	8
Coconut oil	20
Castor oil	8
Caustic soda (38° B _é)	21
Glycerol	6
Alcohol	15
Water	8
	100

Of course, many changes and variations in the composition of the soap and detergent, in the shape and composition of the mold, in the manner of filling, sealing, and cooling the molds, and the like may be made by those skilled in the art in accordance with the principles set forth herein and in the claims annexed hereto.

I claim:

1. A method of manufacturing a ready-to-use cake of transparent soap, comprising the steps of casting a liquid mass of said soap into the aperture of a transparent plastic mold having interior molding surfaces conforming to the desired shape of the cake so as to completely fill the mold, said mold being at least partly flexible, sealing the mold aperture following casting and before solidification of the soap, permitting the liquid mass to cool in the mold to solidify therein in said desired shape, and maintaining the solidified cake of transparent soap in the sealed mold until it is ready to be used.

2. The method of claim 1, wherein the mold is air-tightly sealed after casting.

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RG

[54] BAR SOAP AND ITS PACKAGE
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358, 352, 377

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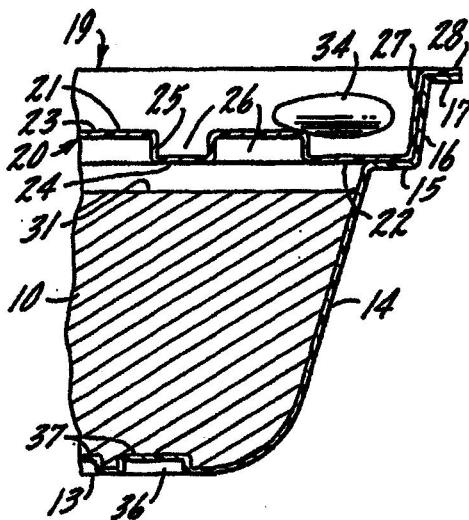
Packaging "Thermoformed Soap Package", Sep. 1981,
vol. 31, No. 10, p. 48.

Primary Examiner—William Price
Attorney, Agent, or Firm—Charles M. Kaplan

[57] ABSTRACT

A transparent, mild, low pH bar of soap has a specific
formulation that enables it to be molded easily and dis-
tributed in a transparent plastic container that is usable
as a travel case and has a lid usable as a reversible soap
dish.

20 Claims, 1 Drawing Sheet



This film causes lid 19 to pop off receptacle 12 unless interacting means are provided on the lid and receptacle to hold on the lid. At each rounded corner 30, lid 19 has an elongated generally oval depression 34 in wall 27. A correspondingly shaped protrusion 35 in wall 16 of receptacle 12 mates with each depression 34. Protrusions 35 easily snap into and out of depressions 34 facilitating removal and closing of lid 19, and this arrangement keeps lid 19 on when the surfaces are wet and soapy. It is also possible to reverse the location of the protrusions 35 and depressions 34 with the depressions being on receptacle 12 and the protrusions being on lid 19.

Indicia such as a trademark 36 may be embossed in the outer surface of bottom 13 of receptacle 12. This will cause spaced parts 37 of the bottom to extend upwardly into receptacle 12 and thereby to cause such indicia to be molded into the under surface of bar 10. The opposite surface 31 of bar 10 is essentially flat because as the molten soap hardened in receptacle 12, its upper surface smooths out at one level. Flat surface 31 enables bar 10 to stay on and be drained by the flat surface 22 of lid 19.

In environments with high humidity, the shelf life of bar 10 can be increased by hermetically sealing container 11. As shown in FIG. 8, this can be accomplished by placing a removable layer of sealing material 40, such as transparent pressure sensitive tape, between bottom 20 of lid 19 and rim 15 of receptacle 12. Such tape should be pressed against rim 15 around the entire surface of the rim, and the tape will be kept from peeling off prematurely by the pressure of lid 19 against its upper surface.

Bar 10 is molded in receptacle 12 by placing the receptacles on a conveyor 41 and moving the receptacles under a gravity flow hopper 42 containing molten soap 43. A predetermined weight of molten soap is fed into each receptacle 12 filling the receptacle to just below its rim 15. The filled receptacle is moved to another location where it cools until the soap is partially hardened, and then lid 19, or a sealing layer 40 and lid 19, is applied.

Numerous transparent soap formulations were tried before the formulation of the present invention was discovered. Only the following emulsion had the desirable characteristics of mildness and low pH in a bar that is transparent, bubble-free, moldable in and removable from container 11:

Ingredient (USP grade)	% by Weight
Sodium Sterate	24.5
Glycerine	18
Cocamide DEA	17
Sodium Cocoyl Sarcosine	11
Distilled Water	11
Sorbeth 40	9
Propylene Glycol	8
Tetra Sodium EDTA	1
HypoAllergenic Fragrance	0.5
FD & C Color	Trace

The sodium stearate, glycerine, sorbeth 40 (sorbitol) and propylene glycol are emollients. The cocamide DEA and sodium cocoyl sarcosine are surfactants, and the tetra sodium EDTA is a chelating agent. All ingredients are grade USP (pharmaceutical) and the fragrance is hypo-allergenic. The color may be FD&C yellow #6. A bar of this soap produces high lather, is free rinsing and non-drying. It is compatible with con-

tainers 11 made from a wide variety of plastics such as transparent virgin and reprocessed vinyl, high impact polystyrene, and polyethylene terephthalate glycol (modified). A soap bar made from the above formulation tightly adheres to lower receptacle 12 during retail distribution. The pH of bar 10 should be from about 8.0 to 8.6 and preferably is 8.3.

It has thus been shown that by the practice of my invention a three piece package includes a solid product such as a bar 10 of bubble-free, transparent, mild, moldable soap, in a container 11 that first serves as the mold for the bar, then the package for retail distribution of the bar, and finally is re-usable as a travel case and soap dish for the bar. The flexible lid 19 is usable as a reversible soap dish that in one position provides fast drainage and drying of bar 10 on horizontal surfaces, yet in another position can retain the bar temporarily when a horizontal surface is not available. If bar 10 sticks to lid 19 after it dries, the bar can be popped off without tearing, simply by flexing lid 19. The shape of container 11 permits easy molding and removal of bar 10, and flat rim 15 provides a surface that can be hermetically sealed easily with tape 40. The mating oval depressions 34 and protrusions 35 hold lid 19 on receptacle 12 even though those parts are wet and soapy. Bar 10 tightly adheres to lower receptacle 12 before container 11 is opened and thus will not move around in the container and be damaged while the product is being distributed; this also makes the package an attractive way to display bar 10 for sale when container 11 is transparent.

While my invention has been described with reference to particular embodiments, I do not intend to illustrate or describe herein all of the equivalent forms or ramifications thereof. Also, the words used are words of description rather than limitation, and various changes may be made without departing from the spirit or scope of my invention disclosed herein. For example, words such as upper and lower or vertical and horizontal will have their meaning changed when the container 11 is oriented differently than as shown in the drawing. It is intended that the appended claims cover all such changes as fall within the true spirit and scope of the my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A mold, travel case and bar of soap combined into a three piece package, comprising:

A. a relatively deep, open-topped, lower receptacle having a bottom portion in which said bar of soap is molded and held, and an upper closure portion on said receptacle that is larger in its horizontal dimensions than said bottom portion;

B. said bar of soap being molded in and substantially filling said bottom portion below said upper closure portion and having a flat top; and

C. a relatively shallow upper lid closing said lower receptacle, said lid being larger in its horizontal dimensions than said bottom portion and closely nesting into said upper closure portion in frictional engagement therewith so as to provide, with said lower receptacle, a container and travel case for said bar of soap, at least one surface of said lid having a flat horizontal surface capable of acting as a soap dish draining water from said bar, said lid having a bottom wall comprising upper and lower vertically spaced transverse surfaces lying in a pair of substantially parallel horizontal planes, each of

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said vertically spaced surfaces comprising a plurality of horizontally spaced transverse horizontal segments connected by transverse vertical segments to adjacent segments defining the other surface, the horizontal spaces in each surface being opposed by the segments defining the other surface, and each pair of adjacent vertical segments connected to the same horizontal segment being capable of providing, with such horizontal segment, a drainage channel for removing water from said bar of soap.

2. The invention defined in claim 1 further comprising an upstanding wall extending above and surrounding said bottom wall of said lid, said lid being reversible as a soap dish, and said upstanding wall preventing said soap from sliding off said dish when said wall is oriented above said bottom wall.

3. The invention defined in claim 1, further comprising means on said upper closure portion and on said lid interacting to hold said lid in said upper closure portion.

4. The invention defined in claim 1, further comprising a plurality of sharp projections extending from said segments defining said lower surface of said lid, said projections pointing away from said upper surface of said lid, whereby when said lid is removed and reversed for use as a soap dish with said lower surface being its uppermost surface, said projections prevent said soap from sliding off said lid.

5. The invention defined in claim 1, further comprising a removable transparent plastic sheet adhering to said upper closure portion below said lid, and said sheet hermetically sealing said lower receptacle.

6. The invention defined in claim 1, wherein said bar of soap comprises the following ingredients:

Ingredient (USP grade)	% by Weight
Sodium Sterate	24.5
Glycerine	18
Coconide DEA	17
Sodium Cocoyl Sarcosine	11
Distilled Water	11
Sorbeth 40	9
Propylene Glycol	8
Tetra Sodium EDTA	1
HypoAllergenic Fragrance	0.5
Color	Trace

7. A mold, travel case, soap dish and bar of soap combined into a three piece package, comprising:

A. a relatively deep open-topped, integral, flexible lower receptacle having a bottom portion that merges into an upwardly extending side wall, a generally horizontal rim surrounding said side wall, a generally vertical upstanding wall extending above said rim, and a generally horizontal peripheral flange extending beyond said upstanding wall;

B. a flat-topped, transparent, removable bar of soap molded into said lower receptacle and substantially filling said bottom portion below said rim; and

C. an integral, relatively shallow, flexible upper lid closing said lower receptacle, said lid having a bottom wall comprising upper and lower vertically spaced surfaces lying in a pair of substantially parallel horizontal planes, each of said vertically spaced surfaces comprising a plurality of horizontally spaced transverse horizontal segments connected by transverse vertical segments to adjacent segments defining the other surface, the horizontal

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spaces in each surface being opposed by the segments defining the other surface, each pair of adjacent vertical surfaces connected to the same horizontal segment being capable of providing, with such horizontal segment, drainage channels for removing water from said bar of soap, an upstanding wall extending above and around said bottom wall, and a generally horizontal peripheral flange extending beyond said upstanding wall, said lower surface of said bottom wall lying on top of said rim of said receptacle, said upstanding wall of said lid being located within and being in contact with said upstanding wall of said receptacle, said flange of said lid lying on top of said flange of said receptacle, and means on said lid and said receptacle interacting so as to hold said lid in contact with said receptacle,

whereby, without said lid, said lower receptacle provides a mold into which said soap in molten form is poured and allowed to harden, said lid thereafter closing said receptacle and providing with said receptacle a travel case for said soap, and said lid also providing a reversible dish either surface of which is usable for elevating said soap for drainage of water through said drainage channels after removal of said soap and said lid from said receptacle.

8. The invention as defined in claim 7, wherein the interacting means holding said lid and receptacle together comprises a plurality of oval protrusions extending from the upstanding wall of either said receptacle or said lid and entering correspondingly shaped oval depressions on the other upstanding wall.

9. The invention as defined in claim 8, wherein said upstanding walls have rounded corners and said protrusions and depressions are located on said rounded corners.

10. The invention as defined in claim 7, wherein a plurality of sharp projections extend from each of said segments defining said lower surface of said lid, and said projections point in a direction away from said upper surface of said lid.

11. The invention as defined in claim 7, wherein the horizontal segments that define each end of said lower surface of said lid are wider than the remaining segments of said lower surface.

12. The invention as defined in claim 7, further comprising a lifting tab extending from said flange of said lid.

13. The invention as defined in claim 7, wherein spaced parts of said bottom portion extend upwardly so as to define indicia that are molded into the surface of said bar of soap.

14. The invention as defined in claim 7, further comprising a removable transparent plastic sheet adhering to said rim of said lower receptacle below said lid, and said sheet hermetically sealing said lower receptacle.

15. The invention as defined in claim 7, wherein said bar of soap comprises the following ingredients:

Ingredient (USP grade)	% by Weight
Sodium Sterate	24.5
Glycerine	18
Coconide DEA	17
Sodium Cocoyl Sarcosine	11
Distilled Water	11
Sorbeth 40	9
Propylene Glycol	8
Tetra Sodium EDTA	1

-continued

Ingredient (USP grade)	% by Weight
HypoAllergenic Fragrance	0.5
Color	Trace

16. A mold, travel case, soap dish and bar of soap combined into a three piece package, comprising:

A. a relatively deep open-topped, integral, flexible lower receptacle having a generally oval bottom portion that merges into an upwardly extending slanted side wall that causes said receptacle to have an expanding cross-sectional area in the direction away from said bottom, an upper closure portion of said receptacle having a generally horizontal rim surrounding and extending away from said side wall, a generally vertical upstanding wall extending above said rim, said upstanding wall having rounded corners, and a generally horizontal peripheral flange extending beyond and surrounding said upstanding wall;

B. a flat-topped, removable bar of soap molded into said lower receptacle and substantially filling said bottom portion below said rim; and

C. an integral, relatively shallow, flexible upper lid closing said lower receptacle, said lid comprising a bottom wall having a flat surface with means that define elongated, spaced, transverse drainage channels for removing water from said bar and promoting air flow under said bar, said drainage channels extending continuously from one edge of said bottom wall to its opposite edge, an upstanding wall extending above and around said bottom wall, said upstanding wall having rounded corners, and a generally horizontal peripheral flange extending beyond and around said upstanding wall, said lower surface of said bottom wall lying on top of said rim of said receptacle in contact therewith, said upstanding wall of said lid being located within and being in contact with said upstanding wall of said receptacle, said flange of said lid lying on top of and being in contact with said flange of said receptacle, and means on said lid and said

receptacle interacting so as to hold said lid in contact with said receptacle,

whereby, without said lid, said lower receptacle provides an open-topped mold into which said soap in molten form is poured and allowed to harden to form said bar, said lid thereafter closing said receptacle and providing with said receptacle a travel case for said bar, and said lid also providing a soap dish for holding said bar and for draining water from said bar after removal of said bar from said receptacle.

17. The invention defined in claim 16 wherein said drainage channels comprise said bottom wall of said lid having upper and lower vertically spaced segments that enable said lid to be used as a reversible soap dish that in one position provides fast drainage and drying of said bar on horizontal surfaces, and in its reversed position retains said bar when said lid is not on a horizontal surface.

18. The invention defined in claim 17 wherein some of said segments are outside of said upstanding wall of said lid and the other segments that are spaced vertically from the first mentioned segments are within said upstanding wall of said lid, and said upstanding wall of said lid retains said bar on said other segments when said lid is not on a horizontal surface.

19. The invention defined in claim 17 wherein said upper segments are within said upstanding wall of said lid for supporting said bar when said lid is not on a horizontal surface, and said upstanding wall retains said bar on said upper segments.

20. The invention defined in claim 16 wherein said bar of soap comprises the following ingredients:

Ingredient (USP grade)	% by Weight
Sodium Stearate	24.5
Glycerine	18
Cocamide DEA	17
Sodium Cocoyl Sarcosine	11
Distilled Water	11
Sorbeth 40	9
Propylene Glycol	8
Tetra Sodium EDTA	1
HypoAllergenic Fragrance	0.5
Color	Trace

* * * * *

United States Patent [19]

Bronander, Jr.

[11] 4,406,364

[45] Sep. 27, 1983

[54] WRAPPED COMBINATION OF SOAP AND RECEPTACLE FOR THE SOAP

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[21] Appl. No.: 299,242

[22] Filed: Sep. 3, 1981

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[52] U.S. Cl. 206/77.1; 206/45.33; 252/93

[58] Field of Search 206/77.1, 45.33, 45.31; 252/90, 93

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Primary Examiner—Joseph Man-Fu Moy

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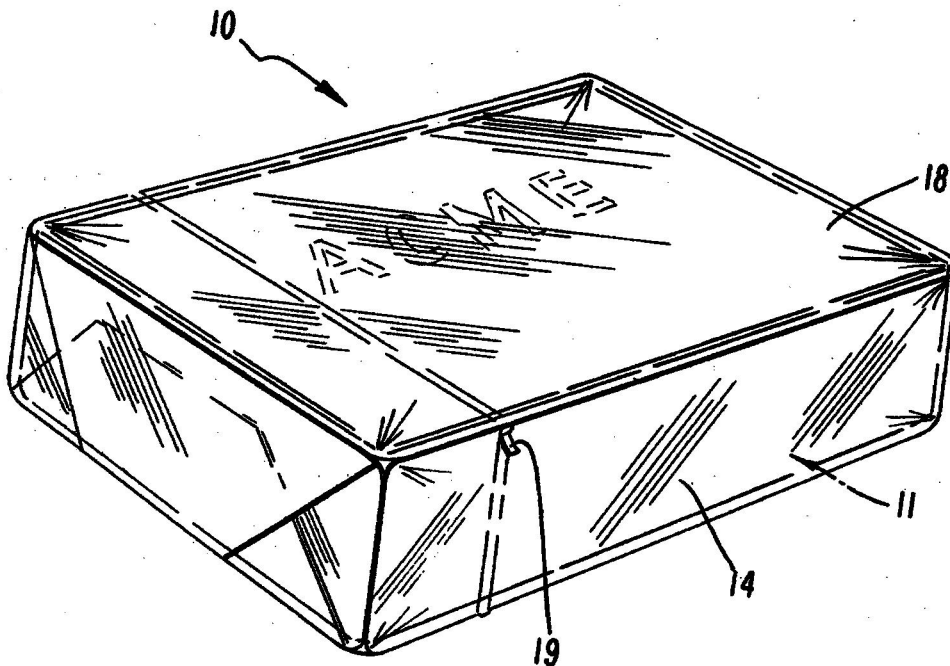
Attorney, Agent, or Firm—Neil F. Markva

[57]

ABSTRACT

The wrapped combination of a cake of soap and disposable receptacle or tray for holding the soap after unwrapping of the combination. Thus, the wrapped combination provides a soap package with its own tray as a part of the package.

8 Claims, 7 Drawing Figures



WRAPPED COMBINATION OF SOAP AND RECEPTACLE FOR THE SOAP

BACKGROUND OF THE INVENTION

This invention relates to a package for soap, and more particularly, to a wrapped soap package with its own disposable tray as a part of the package.

Soap cakes or bars are conventionally packaged in a paper overwrap, usually with a stiffer paper or cardboard piece at least partially wrapped around the cake of soap between the soap and the paper wrapper. Sometimes, the cake of soap is wrapped in a paper wrapper and placed in a cardboard box. Advertising material is typically placed on the overwrap and/or box.

With conventional soap packages, once the overwrap is removed and the package opened there is nothing within which to place the cake of soap as it is being used. In other words, the soap cake is either placed upon the edge of the sink or the user provides a tray or receptacle within which to place the soap cake. If no tray is provided, the soap quickly becomes wet and messy, with soap residue being left on the sink as the soap cake is repeatedly used. However, when the user is travelling away from home, it is not always convenient to provide a soap tray, so there is no choice but to place the soap cake upon the edge of the sink.

Examples of prior art soap packages are shown in U.S. Pat. Nos. 740,440, 1,657,391 and 2,603,032. Of these, U.S. Pat. Nos. 740,440 and 2,603,032 show soap cakes with protective covers 2, 3 and 5, respectively applied permanently to the face of the soap cake. In addition, U.S. Pat. Nos. 2,752,724 and 2,930,160 show soap trays for holding a cake of soap. None of these patents, however, teach the wrapped soap package concept of the present invention.

PURPOSE OF THE INVENTION

The primary object of this invention is to provide a wrapped soap package which includes its own tray or receptacle as a part of the package.

Another object of the invention is to provide a wrapped soap package in which a disposable tray for the soap is a part of the package, and wherein the soap is readily removable from the tray for use when desired.

A further object of the invention is to provide a wrapped combination of a cake of soap with a disposable tray for the soap cake wherein advertising material and the like may be placed upon the tray or other parts of the package. Thus, in one embodiment of the invention, the need is eliminated for some of the wrapping or packaging materials which have no other function once the package is opened.

SUMMARY OF THE INVENTION

These objects and other advantages are accomplished by the wrapped soap package combination described herein. A rectangularly shaped container for the soap cake forms a part of the wrapped combination. The container may be a disposable tray which holds the soap cake and is overwrapped with a sheet of overwrap material in an amount and in a manner to surround both the soap cake and the tray. The soap cake is readily removable from the tray during use, whereby the tray does not interfere with use of the soap. Use of a soap tray as a part of a wrapped package combination eliminates the need for some of the packaging materials com-

monly used in such packages and which have no other function once the package is opened.

Another feature of the invention is that the structural configuration of the container has an amount of stiffness to provide a solid backing against which the overwrap material may be tucked, folded and sealed during the wrapping operation and to further provide support for the soap after the wrapped package is opened. In one embodiment the rectangularly shaped container is a tray having four upstanding sides which extend upwardly with upper edges being located along a plane that is co-extensive with the upwardly facing side of the soap cake disposed in the tray.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects of this invention will appear in the following description and appended claims, reference being made to the accompanying drawings forming a part of the specification wherein like reference characters designate corresponding parts in the several views.

FIG. 1 is a perspective view of a wrapped soap package combination in accordance with this invention;

FIG. 2 is a side view in elevation of the package combination of FIG. 1, with part of the overwrap removed;

FIG. 3 is an exploded perspective view of the package of FIGS. 1 and 2, with the soap removed from the container;

FIG. 4 is a perspective view of a modified container;

FIG. 5 is an end view in elevation of the container of FIG. 4;

FIG. 6 is a perspective view of another embodiment of a container for a wrapped package combination made in accordance with this invention; and

FIG. 7 is a side view in elevation of a still further form of container for a wrapped combination of the invention.

DETAILED DESCRIPTION

More specifically, referring to the drawings, the wrapped soap package combination generally designated 10, includes a tray or receptacle 11 having a bottom 12, opposite sides 13 and 14 and opposite ends 15 and 16. A soap cake 17 rests in tray 11 and a sheet of overwrap material 18 surrounds the assembled tray 11 and soap cake 17. That is, the sheet of overwrap material 18 is wrapped around tray 11 and soap cake 17 in an amount and in a manner effective to hold the soap cake 17 in assembled relationship with tray 11 for storing, shipping and marketing of the soap. Tray 11 has a structural configuration effective for holding soap cake 17 after the wrapped package 10 is opened. The overwrap includes a tear strip 19 to facilitate opening of package 10. As is evident in the drawings and as is disclosed herein, tray 11 is a rigid container and the overwrap material 18 is disposable and is tightly and removably wrapped around tray 11 as described below. Either or both of tray 11 and overwrap material 18 may be transparent or translucent, as desired, and either or both may carry advertising material or other indicia. By way of example, tray 11 may comprise plastic material having an amount of stiffness effective to provide a solid backing against which the overwrap material 18 may be tucked, folded, and sealed during the wrapping operation. The overwrap material 18 may comprise a treated paper, cellophane, a heat sealable material such as polypropylene or polyethylene and the like. The overwrapping operation may be similar to that used to overwrap

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Bezeichnung:

Transparent-Stückenseife

61

Zusatz zu: —

62

Ausscheidung aus: —

71

Anmelder:

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Vertreter: —

72

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DT 1914415

JANUARO CAS

P A T E N T A N W Ä L T E

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- 9 -

1914415

Oppenau, den 20.3.1969

Mein Zeichen: 4768
Dr. Sch/H

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Patentansprüche

- ①. Transparent-Stückenseife, bei der das Stück für die Lagerung und den Verkauf von einer durchsichtigen Kunststoffhülle mit Verschlussband umschlossen ist, dadurch gekennzeichnet, daß die Verpackungshülle aus einer nach dem Tauchverfahren auf der Oberfläche des fertig geformten und erhärteten Transparentseifenstückes erzeugten, auf der ganzen Oberfläche hauteng anliegenden dünnen Schicht eines Abziehlackes besteht, welche auch das als Aufreißband dienende Verschlussband einschließt.
2. Verfahren zur Herstellung von verpackter Transparent-Stückenseife, dadurch gekennzeichnet, daß die in bekannter Weise in Formen gegossenen Seifenstücke nach der durch Abkühlen erfolgten Verfestigung entformt, mit einem eine etwa entstandene Trennaht verdeckenden Band umgürtet und, an den Bandenden hängend, als Ganzes in einen Abziehlack getaucht und nach dem Herausnehmen abtropfen und trocknen gelassen werden.

009840/0814

BAD ORIGINAL

Patented Apr. 25, 1939

2,155,668

UNITED STATES PATENT OFFICE

2,155,668

PACKAGE

John W. Little, Pawtucket, R. I., assignor to Forbes Lithograph Manufacturing Company, Chelsea Mass., a corporation of Massachusetts

Application October 11, 1935, Serial No. 44,526

2 Claims. (Cl. 229-37)

This invention relates to packages and the object is to provide a sightly and inexpensive package in which the outer layer of the wrapping is of transparent cellulosic material such as that popularly known by the name "Cellophane" although that word more properly denotes a particular manufacture of such material. My invention finds a particular application to the packaging of soap, and for convenience in the present description I will refer to soap as the commodity wrapped and to the problems presented thereby.

My invention will be well understood by reference to the following description of an illustrative embodiment thereof shown by way of example in the accompanying drawing, wherein:

Fig. 1 is a perspective of a wrapped cake of soap;

Fig. 2 is a diagrammatic view showing the cake of soap in elevation and spaced therefrom and in section the various wrappings;

Fig. 3 is a perspective illustrating the wrapping partly completed; and

Fig. 4 is a perspective showing a later stage of the wrapping.

It will be understood that in the drawing the thickness of various layers of wrapping material is necessarily exaggerated.

At the present time the purchasing public favors articles enclosed in an outer wrapping of what is known to it as "Cellophane". Such a package may be provided by enclosing a package of conventional or pre-existing form in a Cellophane wrapper but at a correspondingly increased cost for material and handling. The present invention provides for an equally attractive package at a lesser cost. Moreover, in the case of soap, for example, particularly stringent conditions must be met. Toilet soap at the present time is commonly packaged in a fresh or green state and it is desirable to maintain the shapely form of the cake without drying or warping until it reaches the hands of the consumer. Due to the moisture content the cake of soap may sweat and may affect the printing of the enclosing wrapping or otherwise damage the wrapping in such a way as to affect its appearance and detract from salability. These conditions, among others, are met by the construction which I am about to describe.

Referring to the annexed drawing, the cake of soap is enclosed in a wrapping which comprises an outer sheet 1 of transparent cellulosic material desirably of the so-called moisture-proof type, that is, one which has a coating of a

suitable nitro-cellulose lacquer which usually embodies a wax-like plasticizer. I have not attempted in the drawing to show this lacquer coating. On the interior side of the transparent sheet 1 there is printed a suitable image in reverse constituted by a layer 2 of pigment or ink, shown in Fig. 2 but omitted for clearness in the other figures, and in which may be embodied a suitable design such as a medallion 11, illustrated in Figs. 1 and 4, and lettering as 12. The printing is of such an extent that when the sheet is applied about the soap cake or other commodity it conceals the same and the appearance of the transparent layer 1 with the pigment layer 2 on the interior thereof when it is in position is that of an inner printed wrapping paper or the like, which, however, is merely the layer of ink, enclosed by the transparent cellulose. It may be noted here that I use the word "pigment" to refer to colored material applied as an ink or paint and do not necessarily imply a pigment in the more technical sense of a dry powder suspended in a vehicle to form a paint.

If the printed cellulosic sheet were wrapped alone about a cake of soap, it will be apparent that at the joints where sealing is required the pigment layer would be presented in opposition to the outer surface. The adhesives commonly used for transparent cellulose have a solvent action thereon and would attack the ink, especially since lacquer base ink is customarily used, and thus spoil the appearance of the package. Moreover, the adhesion of the ink or pigment layer to transparent cellulose is comparatively weak and, if the printing is on so-called moisture-proof material, the adherence can be no better than that of the lacquer layer over which it is applied. It is therefore desirable to provide a joint which, while secure, will separate without breaking away the pigment layer to give an unsightly appearance to the wrapper when removed, which would be likely to suggest damage to the purchaser.

In accordance with my invention I utilize a thermoplastic adhesive positioned inwardly of the ink layer at least at the location of the joints to form a seal by its adherence on the one hand to the pigment layer and on the other hand to the outer face of the cellulosic sheet. Paraffin wax of the kind used in the manufacture of self-sealing waxed papers, such as bread wrappers, is an example of such material. Conveniently I may provide a layer of wax completely covering the inner face of the pigment layer and serving completely to protect it from the soap.

To obtain expeditiously and economically the advantages of a substantially unitary wrapping capable of application by a single wrapping operation the wax in the preferred embodiment of the invention herein illustrated is supported on a carrier sheet 13. A complete inner layer of wax is provided by the use of a sheet of ordinary waxed paper of the so-called self-sealing variety embodying a paper base, which may be of fairly cheap quality, coated throughout its area with paraffin wax in the usual manner.

In the packaging of soap at the present time an encircling band of thin card is frequently applied about the cake about which the flexible wrapping material is shaped to provide a more regular package. I may omit such a band and make the central portion of the waxed wrapping sheet heavier to provide a similar form and herein I have shown the central portion of the sheet pleated to form a treble thickness for this purpose. In Fig. 2 consistently with its diagrammatic character the layers of this pleated portion are shown separated for clearness, but it will be understood that in practice they lie close together and ordinarily will be joined together by the coherence of the wax making a stiff central band of approximately the length of the soap cake 5.

As illustrated in Figs. 3 and 4, the cellulosic outer sheet 7 and the inner waxed sheet 13 are wrapped as one about the soap cake 5. In Fig. 3 this wrapping is shown partially completed as if the work were being done by hand. Ordinarily a machine would be used and it will be noted that the two sheets could be applied by a single wrapping unit. As the result of this application of the superposed sheets as a unit they are interleaved at the joints of the package. Thus at the longitudinal joint about to be completed across the broad face of the cake by folding down the upstanding portion shown in Fig. 3 there will be provided serially from the upper face of the cake as there shown first the waxed paper layer 13 and then the cellulosic layer 7 as shown in the folded-down position, next a waxed paper layer and finally a cellulosic layer. Similarly at the end joints, as illustrated in Fig. 4, if the lower flap is first folded upwardly, the waxed layer 13 will be next to the soap cake, then the cellulosic layer 7, then the waxed layer 13 and then the cellulosic layer 7. As a result of this it will be seen that the outer surface of the underlying portion of the cellulosic layer 7 which is coated with moistureproofing lacquer will be presented at the joint to the waxed paper layer. These parts are

adapted to cohere on slight heating to effect sealing of the package without the use of adhesives possibly deleterious to the ink.

In the package described the soap receives a double protection both from the waxed paper inner wrapping and from the outer wrapping. The dress of the package, such as the coloring, decoration, trade-marks and the like, is provided by the layer of ink adherent to the inner face of the transparent cellulose sheet 7. This ink is completely protected from the soap and vice versa by the intervening waxed paper. The waxed paper which is relatively unsightly on the other hand is completely covered by the layer of ink. The exterior appearance of the package is that of a commodity in an attractively printed paper wrapper enclosed by an external wrapping of transparent cellulose. The package may be formed in a single simple wrapping operation and with economy of materials.

I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiment to be considered in all respects as illustrative and not restrictive; reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

I claim:

1. A package comprising a commodity, an enclosing wrapping therefor comprising an outer sheet of transparent cellulosic material and a pigment layer over substantially the entire inner face thereof to simulate an interior enclosed wrapping of like color and an inner sheet of waxed paper having a central relatively stiff zone to provide an encircling band about the commodity defining the shape of the enclosing wrapping, the two sheets being folded as one about the body and sealed by the coherence of the wax and the outer face of the wrapping.

2. A package comprising a commodity, an enclosing wrapping therefor comprising an outer sheet of transparent cellulosic material and a pigment layer over substantially the entire inner face thereof to simulate an interior enclosed wrapping of like color and an inner sheet of waxed paper having a central portion pleated to provide a multiple thickness to provide an encircling band about the commodity defining the shape of the enclosing wrapping, the two sheets being folded as one about the body and sealed by the coherence of the wax and the outer face of the wrapping.

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UNITED STATES PATENT OFFICE

2,267,310

SOAP PACKAGE

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6 Claims. (Cl. 252—93)

This invention relates to an improvement in the packaging of articles or materials such as cakes of soap or soap powders and more particularly to an improved wrapper or material from which wrappers or containers for soap may be made.

Most soap as it is commercially made at present contains residual alkali, small portions of unsaponified fatty acids and other ingredients which during the normal course of storage reacts with most all standard types of packaging papers which are retained in direct contact with the soap. The effect of this reaction brings about various types of staining of both the soap and the wrapper. The extent and character of the staining vary with the different types of paper selected as a wrapping material and the quality of the packaged soap.

For many years paper manufacturers have made papers which are commonly classed as "alkali proof papers." These alkali-proof papers are made usually of neutral pulps, that is those which have neither an acid nor an alkaline reaction, and they are made with starch sizing rather than rosin, glue or other standard sizing materials. These papers have a somewhat less tendency to discolor in contact with soap than other grades of paper. The use of these papers, however, does not eliminate the staining entirely and is only an improvement to a moderate degree over other grades of paper.

Then further in the case of wrappers which have been printed with oil type inks, that is, where the ink pigments or other coloring materials are bonded to the paper surface with a drying oil such as linseed oil, the nature of the reaction between the soap and paper wrapper is such that the oil is saponified. This reaction destroys the binding action of the oil which in turn frees the pigments and other coloring materials which are easily removed in the normal course of handling the packaged soap. The printing then becomes illegible and the reaction may be sufficiently complete to cause a general smearing of the ink pigments and coloring materials that the package takes on an untidy appearance. This is undesirable due to the fact that it suggests to the ultimate buyer that the product is shopworn and is not fresh merchandise. There are other types of inks which might be used on which the chemical reaction of the soap would be quite different.

More recently, particularly in gravure printing, inks are used in which nitrocellulose is the binding ingredient. Nitrocellulose is unstable in the

presence of an alkali. Relatively the same effect would result on wrappers printed with this type of ink as with wrappers printed with oil type inks.

Then further in the packaging of soap it is desirable to retain a certain amount of moisture depending upon the type and quality of soap packaged.

At the present time it is customary to double wrap the soap, using an attractive but relatively costly outside wrapper and an inner wrapper, the latter serving, in combination with the outer wrapper, to protect the soap from drying out and also protecting the outer wrapper from the action of the alkalies in the soap which as above pointed out, tends to stain the wrapping and saponify the oil binding material used in decorating the outer wrappers, causing the ink to blur and come off on the hands of the user. Because of the increased storage periods, particularly where large quantities of small cakes are purchased these conventional wrapping methods have at best proved inadequate and not susceptible to any substantial cost reduction.

It is the object of our invention to overcome these difficulties and provide a wrapping for soap which is cheaper to apply, and which will adequately protect the soap over substantial periods, and which is itself unaffected by the soap alkalies over an equal period.

According to our invention we form a wrapper from a specifically treated paper which may be of any suitable character capable of satisfactorily receiving the usual printed matter which is customarily applied to the outer wrapper. Preferably while the paper is in web form, we coat that side which is to contact with the soap with a solution of a mixture of vinyl resins. These resins are polymers of vinyl acetate and/or vinyl chloride, or conjointly polymerized vinyl acetate and vinyl chloride. They are commercially available under various trade names. "Vinylite" and "Gelva" resins are commercial plastics of this class which we find suitable for our purpose. Preferably we reduce the plastic material to a solution which may be applied to the paper in a conventional coating machine. We have found organic solvents, such as acetone and toluol are suitable solvents, together with a suitable plasticizer such as dibutyl phthalate, for the plastic in preparing it for use in coating machines. Other suitable plasticizers are dibutoxy ethyl phthalate, diethyl phthalate, and methyl phthalyl ethyl glycolate. Alternatively the plastic may be similarly brought to a paste consistency and spread on the paper, but we prefer the coating method since thinner coat-

ings are more easily obtained and we find that a coating of the order of .00025 inch thick is adequate for our purpose. We prefer to work within a range of from .00015-.0005 inch thick although we are not limited to this film thickness. Upon evaporation of the solvent a coating of the plastic mixture is left on the paper, which coating is sufficiently resistant to the alkalies of the soap to protect the paper and printing applied to the outside of the wrapper.

Typical formula

	Parts
Vinyl resin.....	20
Dibutyl phthalate.....	2
Acetone.....	39
Toluol.....	39

The coating we place on that side of the paper which is positioned adjacent to the soap, in one sense, places a protective film, which is immune to the soap action, between the soap and the paper. This eliminates the use of intermediate wraps and makes it possible for the soap manufacturer to apply conventional printing to the other side of the wrapper.

The use of a wrapper made according to my invention eliminates the necessity of a careful selection of inks and methods of printing and permits the soap manufacturer to use the most economical type of printing methods.

We have found that even under rigid tests soap packaged in our wrapper has a much less tendency to lose its moisture than soap packaged in untreated wrappers.

Further, due to the nature of our coating, the wrappers may be sealed by moistening the coated surface with suitable organic solvents, such as acetone, ethylene-glycol-mono-ethyl-ether and ethylene-glycol-ethyl-ether acetate, or it may be heat-sealed. The coated film becomes sticky when moistened with these solvents and thus serves as an adhesive for completely sealing the packaged soap. The nature of this sealing is such that it will not be affected by moisture as in the case of water soluble adhesives which are used to a large extent for sealing merchandise packed in paper wraps. The sealed joints will not come apart in ordinary storage and will keep the wrapper intact over long periods of normal storage conditions. In extremely humid weather and due to the hygroscopic action of some soaps, particularly those which contain varying amounts of glycerine and other similar materials, the ordinary glued joints would have a tendency to release.

Our proposed coating is colorless and transparent. This is an advantage in that it does not discolor the paper to which it is applied; whereas other materials which might have a similar protective feature are apt to be colored and this we believe is undesirable.

The coating is also odorless and has no effect on the perfumes often used in the toilet soaps.

The length of storage time which our wrapper permits solves one serious difficulty in the sale of soap cakes. It further reduces wrapping costs by permitting the safe use of a single wrapper and further simplifies the wrapping operation itself since the coated wrapper may be solvent-sealed or heat-sealed.

The coated web may be cut into wrappers of desired size and printed on the uncoated side with the usual inks. The coating placed on the inner side of the wrapper according to our invention is sufficiently thin and flexible to permit use of the conventional wrapping machines. The solvent sealing properties of the resinous coating simplifies the sealing of the wrapper on the soap cake and secures a much more efficient sealing of the wrapper than is afforded by the usual adhesives, and therefore greater assurance that the soap will not dry out during storage. Furthermore, the resinous coating increases the strength of the paper permitting the use of a relatively cheap grade of paper without danger of tearing in the wrapping machine or in the subsequent handling of the soap.

We claim:

1. A package comprising a bar of soap sealed in a sheet of wrapping material provided on one side with a moisture-, acid-, and alkali-resistant coating of vinyl resin adapted to counteract the emission of characteristic constituents of the soap for reducing wastage and deterioration thereof.
2. A package comprising a bar of domestic soap sealed in a sheet of wrapping paper having printing thereon, the paper on one side being provided with a coating of moisture-, acid-, and alkali-resistant coating of vinyl resin adapted to counteract the emission of characteristic constituents of the soap for reducing wastage and deterioration thereof, said vinyl resin coating further serving to prevent alkali properties in the soap from attacking the ink bases in the printing on the wrapper to preclude running of the printed matter.
3. A package comprising a bar of soap sealed in a sheet of wrapping material provided on one side with a moisture-, and alkali-resistant coating of vinyl resin adapted to counteract the emission of characteristic constituents of the soap for reducing wastage and deterioration thereof.
4. A package comprising a bar of soap sealed in a sheet of wrapping material provided on one side with a moisture-, and alkali-resistant coating of vinyl resin adapted to counteract the emission of characteristic constituents of the soap for reducing wastage and deterioration thereof, said wrapping being heat sealed about the soap.
5. A package comprising a bar of soap heat sealed in a sheet of wrapping material provided on one side with a moisture-, and alkali-resistant coating of vinyl resin adapted to counteract the emission of characteristic constituents of the soap for reducing wastage and deterioration thereof.
6. A package comprising a bar of soap sealed in a sheet of wrapping material provided on its soap engaging side with a moisture-, and alkali-resistant coating of vinyl resin adapted to counteract the emission of characteristic constituents of the soap for reducing wastage and deterioration thereof.

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RIGID PACKAGE STRUCTURE

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1 Claim. (Cl. 206—45.33)

This invention relates to an improvement in packaging. More particularly it relates to a rigid package structure that is especially useful in packaging articles of any shape so that the broad surfaces of the article can be seen from either side of the package.

Articles having convex surfaces such as oval bars of soap and other articles of irregular configuration are commonly packaged in rigid paperboard boxes or the like which are overwrapped with a printed foil or other decorative wrapper. This type of package usually achieves its rigidity by simply using a heavy and therefore necessarily expensive caliper of paper board material for the carton. The appearance of these prior art packages is also dependent upon the decorative nature of the outer wrapper and this again adds to the expense of the package when highly decorative, multi-color wrappers are used. It follows, of course, that these packages do not allow the potential consumer to see the product prior to its purchase.

Accordingly, it is a principal object of this invention to eliminate these deficiencies by providing an improved package structure which is rigid and yet uses a comparatively small amount of paperboard material to achieve a very economical construction.

Another object of the invention is the provision of a new and improved package structure which is well suited for firmly supporting objects of oval or irregular configuration and yet allows the packaging operation to be performed on high speed production machinery so that the package is commercially feasible.

Still another object of the invention is the provision of a new packaging concept by means of which the major surfaces of the packaged article can be visible so that the potential consumer will be able to see and inspect the article at the point of purchase whereby he is better able to evaluate and compare competitive articles familiar to him from previous experience.

It is also an object of the invention to provide a package which is tamper-proof, viz. one from which the product is not readily removed while on display in a store.

While the package of this invention is well suited for packaging any article regardless of shape, it will be referred to herein as applied to bar soap packaging, as the invention has been found to have particular wide utility and application in this field. It will be understood, of course, that this is not to be construed as a limitation on the invention as the packaging of toothpaste tubes, shampoo containers, hair dressing containers, and like articles are well within the contemplation of the inventive concept hereinafter disclosed.

The invention can be summarized briefly as comprising oppositely disposed side and end panels folded into a rectangular frame and having a glue flap at one end adhered to the surface of the panel at the other end. Each panel has an upper and lower extending portion which is folded to form an inwardly extending tubular support on the inside of and at the upper and lower edges of each panel. The tubular supports may be beveled at their ends so that a continuous inwardly extending tubular support is formed on both sides of the package. The tubular supports form a rigid frame for the package and contact the edge surfaces of the soap bar to hold it firmly in place. The package so formed has the broad

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faces of the soap bar exposed for inspection by potential purchasers. The frame can be overwrapped if desired with a transparent film if the advantages of product exposures are to be retained. On the other hand, if product exposure is not deemed necessary, it can be overwrapped with a highly decorative semi-transparent or even an opaque outer wrapper.

While the specification concludes with a claim particularly pointing out and distinctly claiming the subject matter regarded as forming the present invention, it is believed the invention will be better understood from the following description taken in connection with the accompanying drawings in which:

FIGURE 1 is a plan view of frame blank in flat form.

FIGURE 2 is a plan view of the frame blank after the tubular supports have been formed.

FIGURE 3 is an end view taken on line 3—3 of FIGURE 2 showing the tubular supports in elevation.

FIGURE 4 is an isometric view of the frame erected for receiving a bar of soap.

FIGURE 5 is an end elevation of the partially erected frame of FIGURE 4 after the bar of soap has been inserted.

FIGURE 6 is a side elevation of the completed frame showing the position of the glue flap.

FIGURE 7 is a plan view of the finished package showing the large area of the bar of soap that remains visible.

FIGURE 8 is an isometric view of the finished frame after a transparent overwrap has been applied.

FIGURE 9 is an end elevation showing a modified way of forming the tubular supports with the blank of FIGURE 1.

FIGURE 10 is a plan view of a modified form of blank in which diamond cut-outs separate the extensions for adjoining panels rather than slots as illustrated in FIGURE 1.

FIGURE 11 is a further modification of a frame blank in which triangular cut-outs separate the extensions.

FIGURE 12 is a fragmentary corner of a frame made with the blank of FIGURE 11 showing an interlocking construction for the adjoining tubular supports.

Referring now to the drawings and particularly FIGURE 1 there is shown a frame blank 19 which is formed by cutting and scoring cardboard, paperboard, carton-board or like material. The frame blank is divided into end panels 20 and 21, side panels 22 and 23 and a glue flap 24 by means of the horizontal scores 25 and 26 and the vertical scores 27, 28, 29 and 30.

Each of the panels 20 through 23 have an extending portion 31 at the top and an extending portion 32 at the bottom. Each of the extending portions 31 are divided into three parallel areas by the horizontal scores 33 and 34, the score 33 being aligned on each of the extending portions 31 and, similarly, the score 34 being aligned on each of the extending portions 31. The lower extending portions 32 are similarly divided by horizontal scores 35 and 36.

The extending portions 31 are separated by slots 37 which extend outwardly in parallel relation to the horizontal score 34. Each slot 37 is beveled at 38 and 39 at an angle of about 30° running from the horizontal score 34 inwardly to intersect at the horizontal score 25 and the respective vertical scores 28, 29 and 30.

A bevel 40 of about 30° extends from the intersection of the horizontal score 25 and the vertical score 27 to the horizontal score 34. The left edge 41 of the upper portion 31 extending from the end panel 20 is substantially perpendicular to the scores 33 and 34 outwardly of the score 34. The right edge of the upper extending portion 31 from the side panel 23 is formed with a substantially 30° bevel 42 from the intersection of the horizontal score

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can be made without departing from the spirit and scope of the invention and it is intended to cover in the appended claim all such changes and modifications that are within the scope of this invention.

What is claimed as new is:

A package comprising a frame, said frame being formed from a frame blank generally configured in the form of an elongated strip of paperboard material, said frame blank having two spaced parallel scores running longitudinally from one end of said elongated strip to the other end thereof, a plurality of transverse scores at intervals along the said frame blank and being substantially perpendicular to said parallel longitudinal scores thereby dividing the central portion of the frame blank into four panels including two side panels and two end panels, said side and end panels being alternately spaced along said frame blank, a flap articulated to and extending beyond the panel at one end of said frame blank, an extending portion projecting laterally outwardly from each of the longitudinal scores which define the edge portions of the side panels, each of said extending portions being at least partially separated by angular relief cut-outs outwardly of each of said transverse scores, each of said extending portions being folded into a tubular support, said tubular supports being adhered to their adjoining panels so that each of said side and end panels has a pair of spaced, substantially rigid tubular supports in parallel relationship alongside the longitudinal scores forming the upper and lower extremities of said side and end panels, said side and end panels being folded into a substantially rec-

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tangular frame by folding the said frame blank on said transverse scores so that the said tubular supports face inwardly, a bar of soap embraced within said frame by means of said tubular supports bearing on the convex surfaces of said bar of soap holding the said bar in place after said frame blank is formed into the said rectangular frame, said flap at one end of said frame blank being secured to the panel at the opposite end of said frame blank to complete the frame structure around said bar of soap, said frame structure being overwrapped with a flexible and heat shrinkable plastic film, said film being heated and shunk on said frame structure to impart greater rigidity to said frame structure and to retain said secured flap in the completed package.

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3,329,258

MULTIPLE OBJECT VISUAL PACK

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15 Claims. (Cl. 206—45.14)

This invention has to do with improvements in the packaging of multiple objects in side by side relation and in a manner adapted to serve various requirements for commercial display, stacking and handling otherwise of the packages. The invention has been made with the objective of providing novel features and improvements in the packaging of soap bars, and accordingly will be described with reference to that typical use.

In certain of its general aspects, the invention contemplates a new form of package for the accommodation of a plurality of soap bars in side by side arrangement, and in a manner permitting attractive display of the packaged bars and providing a convenient container for household use. Also particularly contemplated is a package having these and other advantageous features, which also is especially designed and formed to permit stacking of the packages for transportation or for display in a manner protective of the soap bars and affording such interengagement between such successive packages as will prevent their lateral shifting from vertically aligned stacked condition.

Considering certain display features and objects of the invention, the package is shaped and designed for thermoforming from plastic sheet stock which, as such, may be relatively thin but when deformed to the package shapes and configurations is rendered sufficiently strong to withstand loading under multiple stacking while remaining protective of the soap bars. The package comprises a base or tray section and an interengaging cover section both formed with vertically opposed recesses to receive the soap bars.

In more structural particularity the invention contemplates inter-engaging the lower extent of the cover section with the base or tray section along a parametrical up-standing label area of the container about the base section, all in a manner such that the container is shaped about its recess configurations to essentially rectangular form. The labeling area is so related to the sections as not to interfere with effective display transparency of the cover, while providing for the accommodation of labeling which may appear at all four sides of the container.

The invention provides for particularly desirable and practical labeling by applying to one side of the container and labeling area what may be a section of the total label serving to hinge the cover to the base tray, but which is removable for separate use of the tray. The remaining label extent preferably is in the form of a removable tape, bearing product name and any desired advertising material, which initially seals together the package sections and may be removed and reapplied between the soap bar removals.

All the various features and objects of the invention, as well as the details of an illustrative embodiment, will be understood more thoroughly from the following description of the accompanying drawings in which:

FIG. 1 is a top plan view of the package;

FIG. 2 is a front elevation of FIG. 1;

FIG. 3 is a bottom plan view taken from line 3—3 of FIG. 2;

FIG. 4 is an enlarged cross section on line 4—4 of FIG. 1;

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FIGS. 5 and 6 are cross sections on lines 5—5 and 6—6 of FIG. 4, FIG. 6 showing the cover partly open;

FIG. 7 is a fragmentary section on line 7—7 of FIG. 4; and

FIG. 8 is a fragmentary sectional showing of multiple packages in stacked relation.

The drawings show the package to comprise a cover section generally indicated at 10, and a base or tray section generally indicated at 11, each being thermoformed of plastic sheet materials 12 and 13 to contain vertically opposed recesses 14 and 15, 15a, see FIG. 4, for accommodation of the soap bars 16. Preferably the cover section 10 is made of clear transparent plastic, whereas the tray section 11 may, if desired, be made from somewhat heavier opaque plastic sheet stock. As will be understood, the package may be made in the configurations illustrated, to contain any desired number of soap bars, the adaptation to four bars being typical. Also the package, and particularly the recess configurations, may be adapted for the accommodation of various shaped bars, although preferably the bars have the illustrated essentially ovoid shapes flattened peripherally at 17.

Referring particularly to the cover section 10, its recesses are formed to be generally semi-elliptical longitudinally and are defined by side walls 18 having peripheral flats at 19, all in general conformance with the soap bar shapes. At this point it may be mentioned that as initially packed, the soap may be subject to subsequent shrinkage, and therefore the cover section may be formed so that the recess sides 18 are resiliently spread slightly in receiving the soap bars so that as the latter ultimately take their shrinkage, the recess walls will resiliently restore to conformance with the dimensions of the shrunk bars. As shown in FIG. 4, the outer sides of the end recesses are continued straight downwardly by the plastic sheet at 20, and similarly, as appears in FIG. 5, the ends of the recesses are continued straight downwardly in the walls at 21 which are rectangularly continuous and co-extensive in depth with the walls 20.

The recesses 14 are contiguous at the bends 22 which curve downwardly to flats at 22a between the recess extremities, these flats extending to junctures with the walls 21. For reasons that will later appear, the top configurations of the cover recess walls provide shoulders at 241 symmetrically positioned with relation to the longitudinal center vertical plane of the package.

In reference to the base section 11, its internal bar-receiving cavities at 15 are defined by side walls 23 having transversely straight bottom junctures at 24 shaped as illustrated in FIG. 6 to have upward concavity terminating at junctures 25 with vertical extents 26 continuing at 27 to junctures at 28 with the peripheral walls 29 forming the longitudinal sides of the base. Walls 24 and 26 together with their sides 30 form hollow legs having bearing terminals at 25 in the plane P—P of the bottoms of the peripheral sides and ends of the base section for engagement against shoulders 241 in the stacked condition of the packages.

The end tray cavities 15a are defined by inner vertical walls 32 having curved junctures at 33, see FIG. 3, extending transversely of the tray in the plane P—P, the tray walls continuing at 34 beyond the junctures 33 to vertically concave surfaces 35 which with their sides 36 form configurations similar to the previously described hollow leg configurations having their bearing locations at 25. From 35 the tray walls continue at 37 to junctures at 38 with the tray and walls 39 which are continuous and co-extensive to plane P—P with the side walls 29.

In the closed condition of the cover section its peripheral and end side walls 20 and 21 interfit with and engage

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against shoulders 40 of the base and end side walls 39 and 29 according to the relationship appearing in FIGS. 4 and 5. These interengaging and aligned lower extents of the cover and tray walls together form a parametrical area generally indicated at A along both the sides and ends of the package for application of labeling. Referring to FIG. 1 such labeling may comprise an individual label length 42 corresponding in height to the label appearance in FIG. 2 and which runs only along one side of the package in overlapping relation at the area A with both sections so as to constitute an adhesive applied flexible hinge permitting opening of the cover as in FIG. 6, and which may carry any suitable nomenclature. If desired the hinge label 42 may be removed to permit complete separation of the cover and tray sections. A second label 43 is applied continuously to and in overlapping relation with the cover and tray walls so as to occupy the area A about the ends and second side of the package. Label 43 may carry the product name and any other desired information. Being adhesively applied, the label 43 may be removed for opening of the cover, and thereafter may be reapplied if desired.

As previously indicated, a particularly important feature of the invention is the configurations given the package sections to permit a plurality of the packages to be vertically stacked and held in alignment against relative shifting in any direction. FIG. 8 illustrates the relationship of the packages in stacked condition. The internal tray legs formed by walls 32 and 34 vertically support each package on the one below by the bearing engagements of the leg terminals 33 upon the cover flats 23 and also by the interengagement of the cover and tray wall extents 18-34 and 19-35, as well as by the bearing engagement of the respectively convex and concave walls 19 and 24. Relative longitudinal shifting of the packages, i.e. transversely of the soap bars, is prevented by the interengagement of walls 18 and 34. In the bearing of the upwardly concave tray walls 24 and 35 upon the convex cover surfaces 19, the tray hollow leg terminals at 25 are brought opposite the cover shoulders 241 so as to be engageable thereagainst, thus to positively interlock the packages against relative lateral shifting, i.e. longitudinally of the bars. As will be apparent, the described interengaging relationships of the stacked package walls are such as to assume all loads protective of the soap bars against crushing or other deformation.

We claim:

1. A package for multiple soap bars or the like, comprising a base tray section and an overlying cover section the lower extent of which is telescopically interengaged with the sides of the base section along a parametrical upstanding labeling area of the container about the base section and defined by vertical planar surfaces of the packages at the outside of the telescopic interengagement of the sections, said sections being formed of plastic sheet material deflected to form parallel upper bar-receiving recesses in the cover section above said area and opposed recesses in the base section to receive the bars, the sheet material of both sections being shaped about said recesses to essentially rectangular form.

2. A package according to claim 1, in which said lower extent of the cover section overlaps the outsides of the base section within said labeling area.

3. A package according to claim 1, in which the base

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section has surfaces below its said recesses adapted to rest upon the top wall surfaces of the cover recesses of a corresponding package.

4. A package according to claim 1, in which said cover section recesses are generally semi-elliptical in their parallel extents and are transversely generally concave.

5. A package according to claim 4, in which the base section recesses are substantially shallower than the cover section recesses and have longitudinally and transversely curved bar supporting surfaces.

6. A package according to claim 4, in which the cover section recess forming portions of the sheet material are substantially contiguous and said material forms essentially flat fillets between the end extents of the recesses and the sides of the cover section.

7. A package according to claim 4 adapted to be stacked between and in alignment with upper and lower corresponding packages, said packages comprising shoulder means on top curved surfaces of the cover recess walls, and shoulder means beneath base section recesses, adapted to rest upon said top curved surfaces of the cover section and to engage the first mentioned shoulder means to limit relative shifting of stacked containers longitudinally of the recesses.

8. A package according to claim 7, including also shoulder means beneath the base section recesses engageable against sides of cover recess walls to limit shifting of stacked containers transversely of the recesses.

9. A package according to claim 4, in which the base section wall has hollow extensions below the recesses adapted to rest upon the cover section wall deforming the top of the cover recesses.

10. A package according to claim 9, in which the bottom edges of the base section and said hollow extensions terminate in substantially the same plane.

11. A package according to claim 1, in which said base section is opaque and the cover section is transparent.

12. A package according to claim 1, including removable hinge means interconnecting the sections along one edge within said label area for opening swinging movement of the cover.

13. A package according to claim 1, including a removable tape applied to sides of the package along said labeling area.

14. A package according to claim 1, including a hinge tape overlapping and interconnecting the sections to form a flexible hinge along one side of the package, and a removable tape applied to the remaining sides of the package along and within said labeling area.

15. A package according to claim 14, in which said removable tape overlaps and releasably holds the cover to the base.

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