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25

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



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Referencia: Patente Modelo de Utilidad

"RIEL RETENEDOR PARA CARPAS DE CAMIONETAS PICK UP"

Solicitante: BLANCA HERMINDA RUBIANO MARIN

I. PETICIÓN

Yo, JORGE E. VERA VARGAS, obrando como apoderado de la parte solicitante, atentamente manifiesto a su Despacho que de conformidad con el artículo 44 de la Decisión 486 de la Comisión de la Comunidad Andina, comedidamente solicito a usted se sirva proceder a estudiar y examinar la patente modelo de utilidad denominada:

"RIEL RETENEDOR PARA CARPAS DE CAMIONETAS PICK UP"

24

DIVISION DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No 08-20385

EXTRACTO DE LA PRESENTE SOLICITUD DE **MODELO DE UTILIDAD** FUE
PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No **597** DE FECHA
31 DE OCTUBRE DE 2008 EL TERMINO HABIL SEÑALADO POR LA LEY
EXPIRA **EL 17 DE DICIEMBRE DE 2008.**

NOTA: Dentro del plazo de los tres (3) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 y en concordancia con el artículo 85 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO _____ **X** _____

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.

Abogado
Jorge E. Vera V.
(Apoderado)

ASUNTO	Radicación	08 – 20 385
	Trámite	003
	Evento	001
	Actuación	430
	Oficio	Nº 1 28 074
	Folios	022

Patente de Invención ☐ Patente de Modelo de Utilidad ☒

Como resultado del examen de fondo, realizado con fundamento en el artículo 85 en concordancia con el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. De los documentos estudiados

Descripción: Folios 4 a 8 como se radicó inicialmente

Reivindicaciones: Folio 9 como se radicó inicialmente

Dibujos: Folios 11 y 12 como se radicó inicialmente

2. Del objeto de la solicitud

Título de la solicitud: *Riel retenedor para carpas de camionetas pick up*, folio 1

El objeto de la presente solicitud de patente de modelo de utilidad consiste en suministrar un sistema de retención para carpas de picops que consta de un riel que tiene una forma especial y un soporte de ajuste.

El problema planteado en esta solicitud es lograr fijar una carpa sobre la plataforma de los picops sin que haya necesidad de perforar la carrocería.

Para solucionar este problema técnico la solicitud en estudio proporciona un sistema compuesto por: un riel que tiene dos aletas o salientes inclinadas y paralelas y un cuerpo generalmente prismático rectangular con una superficie inferior plana -para apoyarse sobre el borde de la carrocería que rodea a la plataforma- y un costado con una ranura longitudinal con una sección en forma de C; y, un soporte que se engarza, por un lado, en la C del riel y por el otro lado en el borde de la plataforma del picop.

Clasificación Internacional de Patentes (IPC):B60P 7/04

3. De la solicitud de Patente de Modelo de Utilidad

Antes de entrar en detalles específicos, se le dan al solicitante ciertas indicaciones generales, algunas de las cuales son aplicables a este caso y todas deberán ser tenidas en cuenta en las eventuales modificaciones:

El título o nombre de la invención debe concordar con lo que se reclama en el capítulo reivindicatorio. Esto es, si en las reivindicaciones se reclama un producto, tal producto debe ser mencionado en el título, y si en las reivindicaciones se reclama un procedimiento o un sistema o un método, también debe ser mencionado allí. Normalmente, el título debe contener máximo diez palabras aunque eventualmente pueden ser más. El título no debe contener palabras cuyo significado no esté reconocido dentro del sector de la técnica de que se trate. Preferiblemente, deben ser palabras cuyo significado se encuentre en el Diccionario de la Real Academia Española (DRAE).

En Colombia, la máxima autoridad en cuestiones del lenguaje es la Academia Colombiana de la Lengua. En caso de duda sobre el significado de las palabras, se debe acoger la definición que trae el Diccionario de la Real Academia Española (DRAE).

En Colombia, es de uso obligatorio el Sistema Internacional de unidades. Esto implica, también, que la coma decimal es de uso obligatorio. Cuando aparezca algún valor con unidades diferentes a las exigidas, deberá incluirse su correspondiente conversión al Sistema Internacional.

La parte técnica de la solicitud se divide en tres secciones, debidamente separadas, preferiblemente en este orden: El capítulo descriptivo, el capítulo reivindicatorio y el juego de dibujos o figuras. Se prefiere que el texto se presente escrito de manera mecánica, en una sola columna. Ninguna de estas secciones podrá llevar membretes (encabezamientos o pies de página) ajenos al contenido técnico de la solicitud.

Por lo menos el capítulo descriptivo debe estar debidamente paginado y estar escrito a doble espacio, con el fin de facilitar la referencia a los apartados del texto. Se debe evitar, en lo posible, el uso de mayúsculas corridas, hay que recordar que ese empleo equivale a gritar en el lenguaje oral. Se pueden emplear las mayúsculas para resaltar ciertos apartados del texto, pero si todo el texto está escrito en mayúsculas, nada queda resaltado.

La terminología empleada en la descripción y en las reivindicaciones debe ser igual para designar las diferentes partes, piezas, elementos, detalles o aspectos de lo que se mencione en ellas; los cuales, a su vez, deben estar designados con números o signos de referencia.

Dentro del texto de la descripción y las reivindicaciones se aconseja encerrar entre paréntesis el número o signo de referencia cada vez que se mencione el detalle correspondiente, con el fin de distinguirlo de otros tipos de números o signos que eventualmente aparezcan allí. Estos números o signos de referencia deben aparecer dentro del juego de dibujos (preferiblemente, sin paréntesis, aunque pueden estar encerrados dentro de un círculo) siempre acompañados de líneas o flechas que señalen o indiquen a qué parte, pieza, elemento o aspecto se encuentran asociados.

Las reivindicaciones deben estar numeradas individual y consecutivamente (1, 2, ... 5, 6, etc.) El capítulo reivindicatorio no debe tener subtítulos.

Normalmente se pueden encontrar dos categorías de reivindicaciones: una, la de producto; y, la otra, de procedimiento.

En las reivindicaciones se deben definir los alcances de la protección que desea el solicitante. En consecuencia, las reivindicaciones forman un cuerpo aparte de la descripción y como tal debe ser redactado: la primera vez que se mencione un nombre dentro de las reivindicaciones debería estar acompañado de un artículo indeterminado; y, la inclusión -entre paréntesis- de un número de referencia no sustituye la definición del elemento o aspecto al que se refiere, simplemente sirve de información complementaria. Se debe entender que la descripción sirve para interpretar las reivindicaciones y, en consecuencia, si en una reivindicación se reclama un aparato, por ejemplo, no se deberían mencionar aspectos del funcionamiento del aparato dentro de la reivindicación, limitándose a definir únicamente los elementos que constituyen el aparato.

Para detectar si una definición de producto está bien hecha, se debe poder responder a la cuestión: ¿cómo es el producto reclamado? Si no se puede dar una respuesta razonable, es porque el producto está mal definido o no ha sido definido en absoluto. Otra prueba común es la de invertir el razonamiento: ¿son las características definidas -en determinada reivindicación- propias de un producto? Si la definición de una característica de un producto empieza por un verbo, muy seguramente no es una característica propia del producto.

Normalmente no se puede definir un producto por el procedimiento de su obtención, porque el producto, en la mayoría de los casos, es producido en cantidades industriales por una variedad de procedimientos, muchos de los cuales no dejan trazas o huellas que se puedan detectar satisfactoriamente en el producto terminado y puesto a disposición del público.

Por lo demás, los productos industriales son bienes tangibles, son algo concreto, tienen existencia física, y por tanto son susceptibles de definición mediante sus características físicas -en la mayoría de los casos- o físico-químicas en los restantes, aunque existen unas pocas excepciones -que pertenecen a ciertas tecnologías emergentes- en donde resulta más fácil su identificación por el procedimiento de obtención, pero éste no es el caso en la presente oportunidad.

Cada una de las figuras debe estar debidamente identificada, preferiblemente con un número consecutivo: Figura 1, figura 2, ...

Las figuras deben ser realizadas siguiendo las reglas del dibujo técnico.

Se prefiere que dentro de las figuras no se incluya ningún texto. Cada uno de los detalles ilustrados en las figuras deberá estar señalado con un número o signo de referencia, el cual será el mismo en todas las figuras en donde se encuentre el detalle en cuestión. Si en alguna figura no se encuentran números de referencia, se entiende que no se va a decir nada sobre ella dentro del texto de la descripción y, entonces, es preferible que se omita tal figura. Análogamente, si en una figura no se encuentra señalado algún detalle con el respectivo número de referencia, es preferible que se omita tal detalle.

La patente de modelo de utilidad no puede incluir los procedimientos, por definición. Si alguna de las reivindicaciones de una solicitud de patente de modelo de utilidad reclama un procedimiento, debe ser suprimida.

De la descripción (artículo 28 D. 486)

Durante el análisis del texto de la descripción y de las ilustraciones anexadas, se observaron los siguientes defectos:

(1) Tanto dentro del título o nombre del modelo de utilidad como dentro del texto de la descripción y reivindicaciones se encuentra la expresión *pick up*. Como se

trata de una expresión en idioma inglés se le sugiere al solicitante que la sustituya por el término *picop* que, según el Diccionario de la Real Academia Española (DRAE) en su versión en internet, significa: *vehículo de transporte, más pequeño que un camión, con la parte de atrás descubierta* [avance de la 23ª edición]. Su plural, de acuerdo con las reglas de formación sería *picops* [así como el plural de *chip* es *chips*].

(2) En la página 1, folio 4, aparece por primera vez el término *platón*. El significado de este término, según el DRAE, no concuerda con el contexto. Se le sugiere al solicitante que lo sustituya por *plataforma* u otra expresión que se ajuste mejor a lo que el solicitante quiere decir.

(3) En la página 4, folio 7, aparece el término *aletas* cuyo significado, según el DRAE, no concuerda con el contexto.

(4) En la página 5, folio 8, aparece la expresión *rampa monologa (19)* que, por una parte, no tiene sentido en sí misma; y, por otra parte, en la página 4, folio 7, se había asociado el número de referencia (19) a una *aleta*. Se deben corregir los dos defectos.

(5) Con relación a lo ilustrado en las figuras 2 y 4, folio 12, el texto de la descripción -páginas 3 y 5, folios 6 y 8- no es suficiente para entender su funcionamiento.

(6) La descripción no es suficientemente clara y completa como para que un tercero pueda ejecutarla.

La descripción no cumple con los requisitos de claridad y de completitud que exige el Art. 28 de la Decisión 486.

De las Reivindicaciones (artículo 30 D 486)

Durante el análisis del texto de las reivindicaciones se observaron los siguientes defectos:

1) En el capítulo reivindicatorio aparecen las expresiones *pick up*, *platón*, *aletas* que fueron objetadas con relación a la descripción.

2) En la reivindicación 1, folio 9, se reclama un *riel... caracterizado por un perfil que conlleva dos aletas...* pero, con únicamente las dos *aletas* no se forma un perfil como el divulgado en la solicitud. El solicitante debe completar la definición de las características del perfil.

3) En la reivindicación 2, folio 9, se reclama un *riel metálico conforme a la reivindicación 1, caracterizado además porque su adaptación... se hace por presión de un juego de soportes...* Pero, como se trata de definir un producto tangible -en este caso un riel- las características que lo definen deben ser características físicas, tangibles. Además, como aquí se intenta introducir unos elementos ajenos al riel mismo, se sugiere que se reclame un *sistema retenedor* [un conjunto de elementos que colaboran entre sí para obtener un fin determinado] que estaría compuesto por el riel y por los soportes del riel. Lógicamente, si se acepta esta última sugerencia, se deben hacer las modificaciones respectivas dentro del título o nombre del modelo de utilidad -para que concuerde lo que se anuncia en el título con lo que se reclame en las reivindicaciones- y, también, dentro del texto de la descripción -para que las reivindicaciones tengan el sustento exigido-.

4) En la reivindicación 3, folio 9, se reclama un *riel metálico conforme a la reivindicación 1, caracterizado además porque dichos soportes de presión son...* pero, aquí lo que se reclama [un riel] no es lo que se define [unos soportes]. El solicitante deberá hacer las modificaciones pertinentes para que concuerde una cosa con la otra.

Las reivindicaciones que dependen de una reivindicación objetada también se objetan por las mismas causas.

Las reivindicaciones no cumplen con los requisitos de claridad, de definición y de sustento por la descripción que exige el Art. 30 de la Decisión 486.

Se deben presentar, entonces, nuevos capítulos descriptivo y reivindicatorio, ambos completos, junto con un nuevo juego de dibujos, donde se hayan corregido todas las objeciones que se han hecho arriba. Esto con el fin de evitar -cuando solo se presentan algunas páginas sueltas corregidas- que el lector tenga que desplazarse desde un sitio a otro de la solicitud y luego regresar a donde estaba antes sin perder la ilación de la lectura, porque esto produce confusión y afecta negativamente la claridad de dichos capítulos.

4. De la determinación del estado de la técnica

La fecha que se ha tenido en cuenta para determinar el Estado de la Técnica es la

Fecha de presentación de la solicitud nacional 2008-02-27

Durante la búsqueda de anterioridades se encontraron los siguientes documentos, que forman parte del estado de la técnica más cercano al objeto de la solicitud:

n.º	Documento	Título	Fecha de publicación
D1	Patente US 4 061 394, cuyo inventor es George M. Vodin	«Tonneau cover for recreational vehicle»(Cubierta de la plataforma para un vehículo recreativo)	1977-12-06
D2	Patente US 4 526 416, cuyo inventor es Henry J. Rode	«Truck body cover»(Una cubierta para el cuerpo de un camión)	1985-07-02
D3	Patente US 4 639 033, cuyos inventores son Donald G. Wheatley y Patricia A. Wheatley	«Tonneau cover»(Una cubierta para la plataforma)	1987-01-27
D4	Patente US 4 792 178, cuyo inventor es Paul G. Kokx, quien le cedió sus derechos a la Rolltop, Inc.	«Truck tonneau cover assembly»(Un montaje para la cubierta de la plataforma de un camión)	1988-12-20
D5	Patente US 4 807 921, cuyos inventores son James M. Champie, III y Canyon D. Champie	«Sliding cover for truck bed»(Una cubierta deslizante para la plataforma de un camión)	1989-02-28
D6	Patente US 5 540 475, cuyos inventores son Benjamin Kersting y Ross Weldy, quienes le cedieron sus derechos a la Custom Form Manufacturing, Inc.	«Tonneau cover assembly clamping assembly»(Un montaje para asegurar un montaje de la cubierta de la plataforma)	1996-07-30
D7	Patente US 6 030 021, cuyo inventor es Christian Ronal	«Bed cover assembly for a vehicle bed»(Un montaje para una cubierta de la plataforma de un vehículo)	2000-02-29
D8	Patente US 6 676 189 B2, cuyos inventores son Michael G. Schall, Thomas Murray, Anthony E. Michon, Michael J. McIsaac, Thomas J. Mack y Daniel G. Beohmer quienes le cedieron sus derechos a la Webasto Sunroofs, Inc.	«Cover assembly for a vehicle bed»(Un montaje de cubierta para la plataforma de un vehículo)	2004-01-13

Se anexan copias de ciertas páginas pertinentes de estos documentos.

NOTAS: No se realizó una evaluación de los demás requisitos de patentabilidad, porque se objetó la claridad, la definición y el sustento de las reivindicaciones;

esto es, no se pudieron realizar las comparaciones de rigor, por ausencia de materia. Una vez hayan sido superadas las objeciones establecidas en este Concepto Técnico, se podrán hacer los exámenes correspondientes.

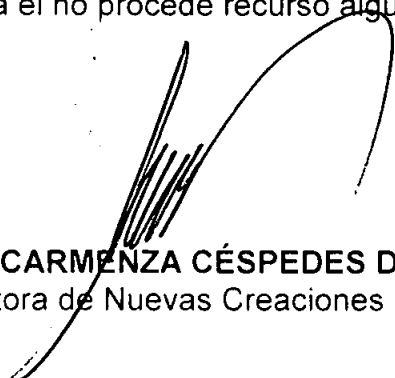
No obstante lo anterior, con base en los documentos encontrados hasta el momento, no se prevén objeciones respecto a la novedad del objeto solicitado.

5. De las conclusiones:

Los requisitos de patentabilidad de la presente solicitud se encontrarían afectados negativamente por la falta de claridad de la descripción y las reivindicaciones y por la falta de definición de estas últimas.

En cumplimiento del artículo 85 en concordancia con el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica al solicitante que debe dar respuesta dentro del término de treinta días contados a partir de la fecha de 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 artículo 8 de la resolución reglamentaria n.º 00210 del 15 de enero de 2001, advirtiéndole que contra él no procede recurso alguno en la vía gubernativa.



ALIX CARMENZA CÉSPEDES DE VERGEL
Directora de Nuevas Creaciones (C)

El anterior requerimiento fue notificado por fijación en lista, de fecha
30 SET. 2010

CONCEPTO TÉCNICO n.º 3349

EXAMINADOR TÉCNICO
Código n.º 202009

United States Patent [19]

Vodin

(11) **4,061,394**

[45]. Dec. 6, 1977

[54] TONNEAU COVER FOR RECREATIONAL
VEHICLE

[76] Inventor: **George M. Vodin, 2280 Hassell Road,
Hoffman Estates, Ill. 60195**

[21] Appl. No.: 648,488

[22] Filed: Jan. 12, 1976

[51] Int. CL¹ B60P 7/04

[52] U.S. Cl. 296/100; 296/137 B

[58] Field of Search 296/99, 103, 100, 137 B,
296/26, 23 R

[56] References Cited

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2,353,820	7/1944	Eddins	296/99 X
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3,820,839	6/1974	Molatalab	296/99
3,954,296	5/1976	Patnode	296/137 B X

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622,457	5/1927	France	296/103
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OTHER PUBLICATIONS

J. C. Whitney Catalog (Cat. No. 328) copyright 1974 p.
13 "Economy Tonneau Covers."

Primary Examiner—Joseph F. Peters, Jr.

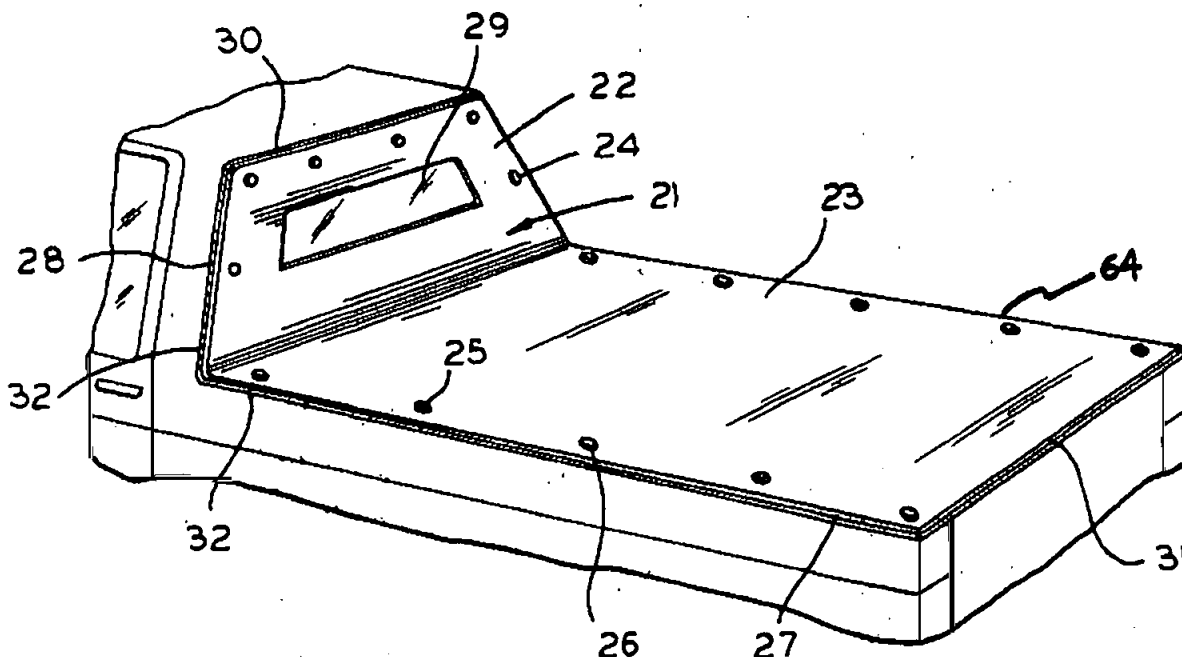
Assistant Examiner—Michael J. Forman

Attorney, Agent, or Firm—Alter and Weiss

[57] ABSTRACT

A tonneau cover for recreational vehicles of pliable weatherproof material which simultaneously covers the rear cab portion of the passenger compartment, and the load bed, as desired. Utilizing already provided mounting apparatus, the cover seals from moisture and the elements of weather, the cab and load bed of the vehicle while providing means of rearward vision for the user of the vehicle.

10 Claims, 8 Drawing Figures



United States Patent [19]
Rode

[11] Patent Number: 4,526,416
[45] Date of Patent: Jul. 2, 1985

- [54] TRUCK BODY COVER
- [76] Inventor: Henry J. Rode, 7911 NW. Westside Dr., Kansas City, Mo. 64152
- [21] Appl. No.: 567,820
- [22] Filed: Dec. 29, 1983
- [51] Int. Cl.³ B60P 7/04
- [52] U.S. Cl. 296/100; 70/18
- [58] Field of Search 296/100, 136, 98; 70/18, 65

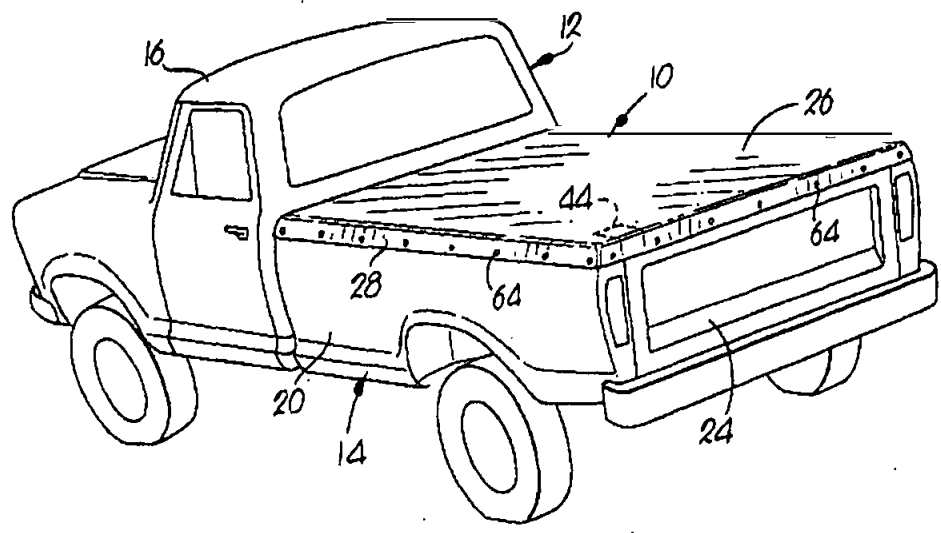
- [56] References Cited
- U.S. PATENT DOCUMENTS
- 3,615,117 10/1971 Neidlinger 296/100
- 4,036,521 7/1977 Clenet 296/100
- 4,184,501 1/1980 Johnson 296/136
- FOREIGN PATENT DOCUMENTS
- 596335 4/1960 Canada 296/100

Primary Examiner—Robert R. Song
Attorney, Agent, or Firm—Schmidt, Johnson, Hovey & Williams

[57] **ABSTRACT**
A retractable cover is provided with a panel draped over the open top of a cargo-receiving truck body, the panel having a body-surrounding flange provided with a tubular casing which receives a flexible draw-element whose terminal ends are releasably locked to the body. Stretches of the element pass from the casing into a pocketed portion of the panel and thence through a pair of eyelets. Loops on the terminal ends of the element, as well as a ring rigid to the body, receive the shackle of a padlock. In a modified form of lock the loops are unneeded. Snap fasteners secure the flange to the walls of the body.

10 Claims, 6 Drawing Figures

D2



United States Patent [19]
Wheatley et al.

[11] **Patent Number:** 4,639,033
[45] **Date of Patent:** Jan. 27, 1987

[54] **TONNEAU COVER**

[76] **Inventors:** Donald G. Wheatley; Patricia A. Wheatley, both of 4451 Ford Rd., Ann Arbor, Mich. 48105

[21] **Appl. No.:** 809,167

[22] **Filed:** Dec. 16, 1985

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 650,275, Sep. 14, 1984, abandoned.

[51] **Int. Cl.⁴** B60J 7/10

[52] **U.S. Cl.** 296/100; 160/327

[58] **Field of Search** 296/100; 160/327, 328

[56] **References Cited**

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3,727,972	4/1973	Belk	296/100
4,036,521	7/1977	Clenet	296/100
4,061,394	12/1977	Vodin	296/100

4,479,677 10/1984 Gulette et al. 296/100

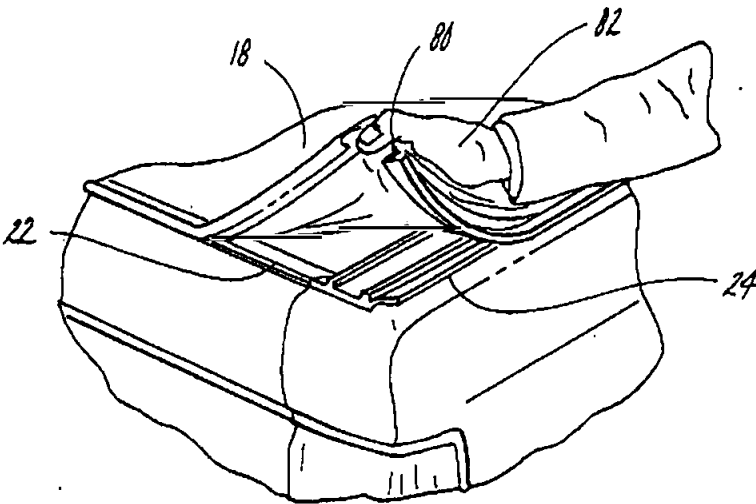
Primary Examiner—Robert R. Song
Attorney, Agent, or Firm—Charles W. Chandler

[57] **ABSTRACT**

A flexible cover for mounting over the cargo area of a vehicle such as a pickup truck, boat or the like, having resilient, J-shaped extruded fasteners attached along the edges of the cover for fastening it to extruded aluminum rails mounted on the vehicle sidewalls. The J-shaped fasteners are formed of a resilient plastic which is mated with the rails in such a manner as to accommodate variations in the distance between the cargo box sidewalls, as well as variations in the flexibility of the flexible cover. The extruded members are adapted to be snapped together by applying a downward force on the J-shaped fasteners toward the rail until a lip on the rail snaps into the resilient fastener. The cover is removed by unzipping the J-shaped fastener from the rail to expose the cargo box area.

D3

6 Claims, 8 Drawing Figures



D3

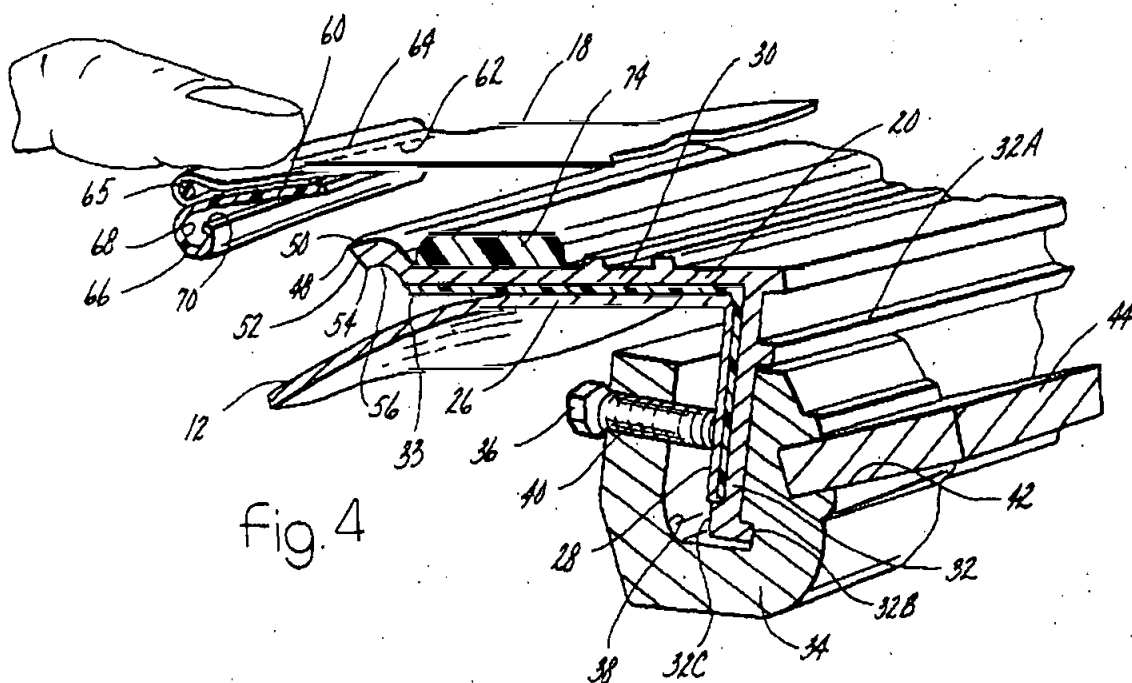


fig. 4

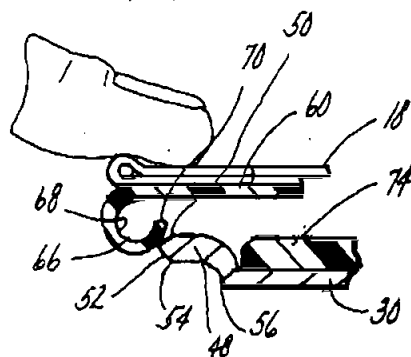


fig. 5

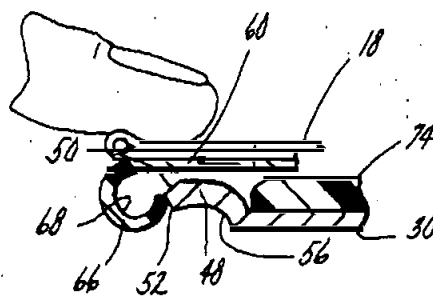


fig. 6

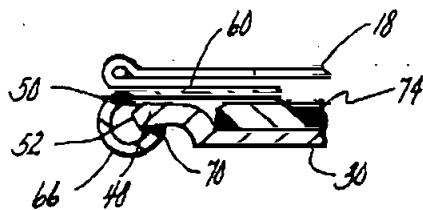


fig. 7

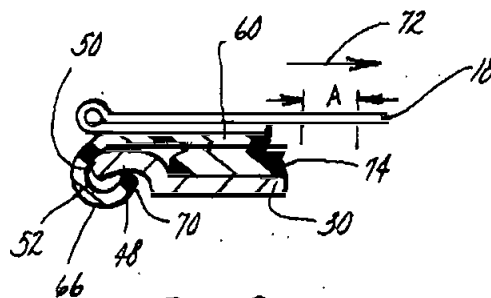


fig. 8

United States Patent [19]
Kokx

[11] Patent Number: 4,792,178
[45] Date of Patent: Dec. 20, 1988

- [54] TRUCK TONNEAU COVER ASSEMBLY
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[73] Assignee: Rolltop, Inc., Sylvan Lake, Mich.
[21] Appl. No.: 87,145
[22] Filed: Aug. 19, 1987
[31] Int. Cl.⁴ B60P 7/04
[32] U.S. Cl. 296/98; 296/100;
160/266
[38] Field of Search 296/98, 100 (U.S. only),
296/219 (U.S. only); 160/266, 270

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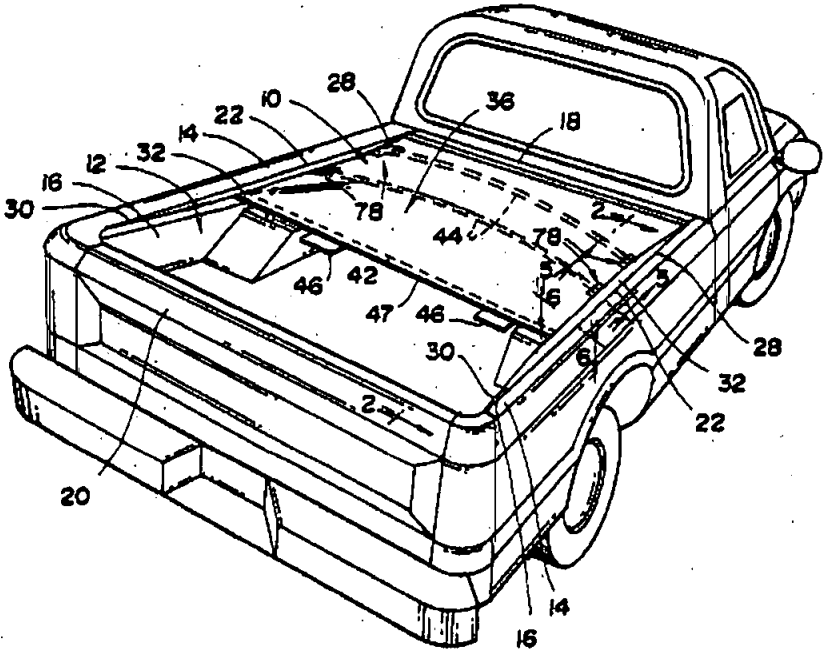
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Primary Examiner—Dennis H. Pedder
Attorney, Agent, or Firm—Brooks & Kushman

[57] ABSTRACT

A truck tonneau cover assembly (10) of the rollable storage type is disclosed as including a pair of elongated guides (22) and a cover (36) with slats (44) that move along converging front ends of the guides to provide the cover with an upwardly curved shape upon unrolling from a storage roll (34) so as to thereby be capable of shedding water. Enlarged side edges (38) of the cover (36) are received within grooves (24) of the guides with the cover extending through restricted guide slots (26) into these grooves to seal the cover edges and prevent the shed water from entering the truck bed (12) with which the cover assembly (10) is utilized. The guides (22) also have rear ends (30) that diverge such that the rear edge of the closed cover is straight and thus sealable with the vehicle truck tailgate (20). Antifriction bearings (48) mount the slats (44) on the guides (22) for forward and rearward movement along the truck bed.

20 Claims, 3 Drawing Sheets



United States Patent [19]
Champie, III et al.

[11] Patent Number: 4,807,921
[45] Date of Patent: Feb. 28, 1989

[54] SLIDING COVER FOR TRUCK BED
[76] Inventors: James M. Champie, III; Canyon D. Champie, both of 7435 W. Cheryl Dr., Peoria, Ariz. 85345
[21] Appl. No.: 74,271
[22] Filed: Jul. 16, 1987
[51] Int. Cl.⁴ B60J 7/10
[52] U.S. Cl. 296/98; 296/100; 160/235
[58] Field of Search 296/98, 100; 160/133, 160/235, 236

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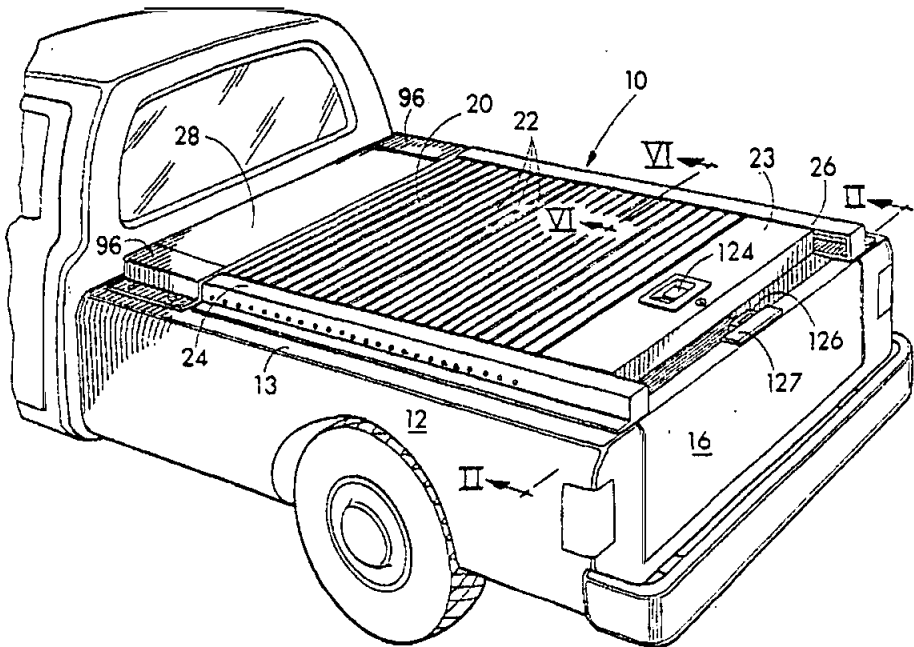
Primary Examiner—Robert R. Song
Attorney, Agent, or Firm—Lathrop & Clark

[57] ABSTRACT

A sliding cover assembly is provided primarily for a truck cargo bed. The sliding cover assembly is mounted on the top edge of the side walls of the cargo bed and includes a plurality of longitudinal, arcuate parallel-disposed rotatably interconnected slats which slide on a low friction surface within the guide means attached to the side walls of the cargo bed. The sliding cargo assembly further includes a lockplate attached to the leading edge of the sliding cover which secures the cover to the tailgate of the cargo bed.

14 Claims, 4 Drawing Sheets

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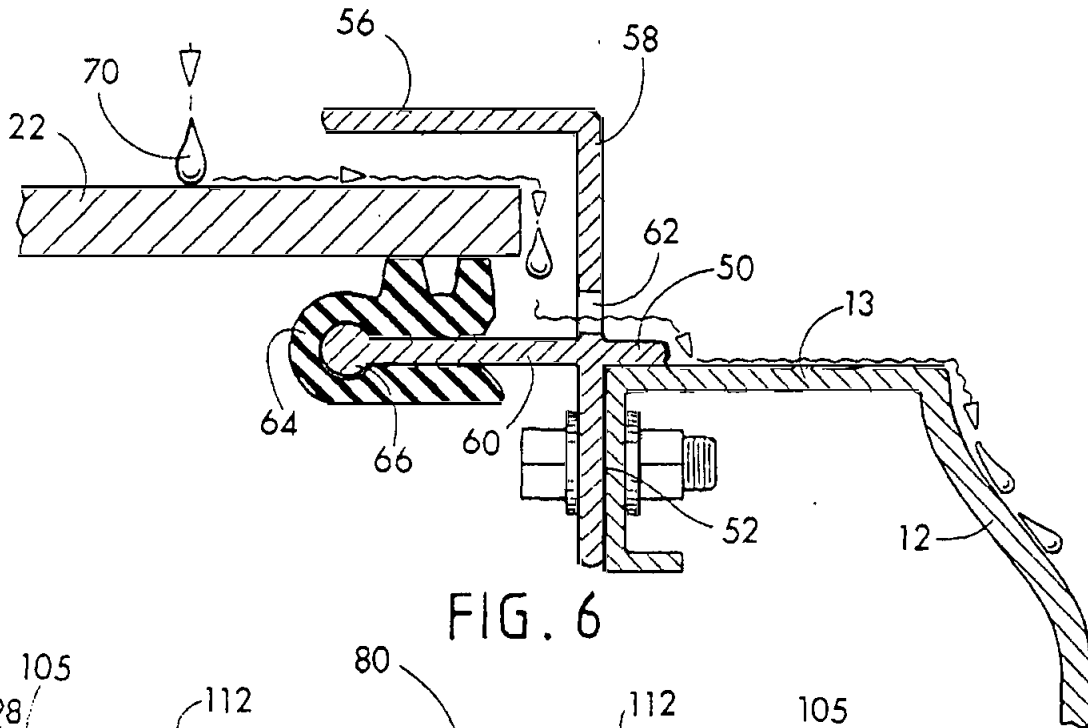


FIG. 6

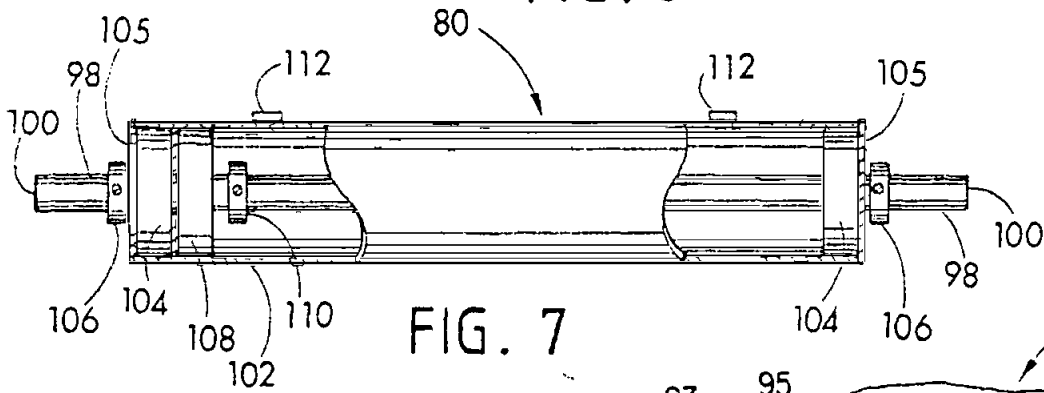


FIG. 7

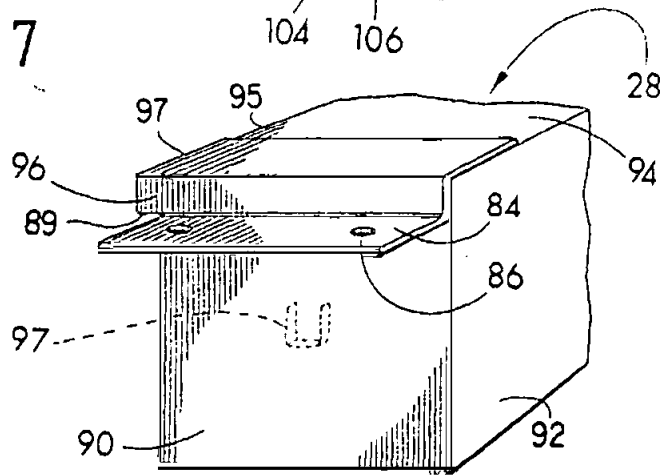


FIG. 8

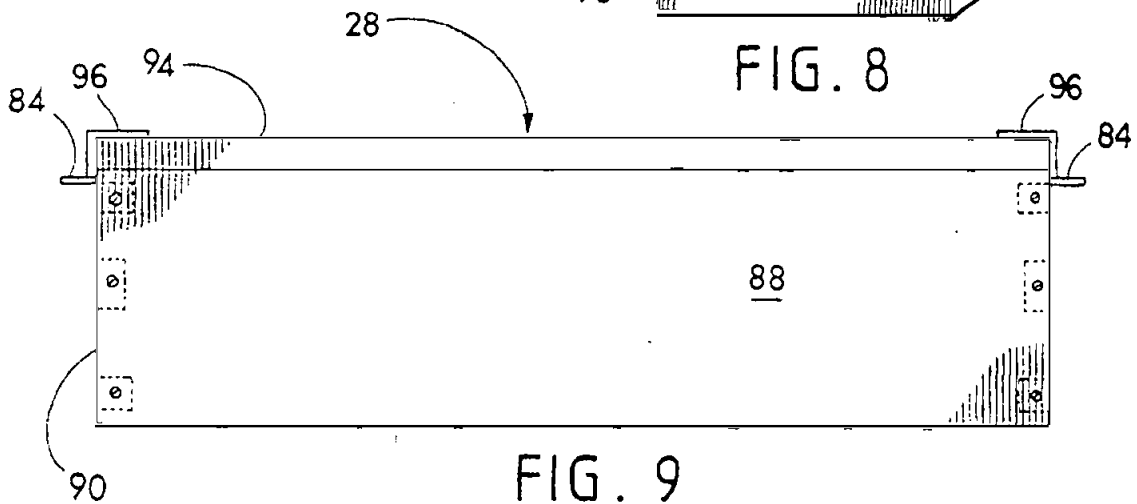


FIG. 9



US005540475A

United States Patent [19]
Kersting et al.

[11] Patent Number: 5,540,475
[45] Date of Patent: Jul. 30, 1996

- [54] TONNEAU COVER ASSEMBLY CLAMPING ASSEMBLY
- [75] Inventors: Benjamin Kersting, Bristol; Ross Weldy, Elkhart, both of Ind.
- [73] Assignee: Custom Form Manufacturing, Inc., Elkhart, Ind.
- [21] Appl. No.: 270,479
- [22] Filed: Jul. 5, 1994
- [51] Int. Cl.⁶ B60P 7/04
- [52] U.S. Cl. 296/100; 24/522; 224/331; 269/43; 269/210; 403/388; 403/409.1
- [58] Field of Search 296/100, 36; 248/316.1, 248/316.4, 316.6, 231.6, 231.4, 231.3; 24/458, 455, 514, 522; 224/329, 331; 403/388, 409.1, 405.1; 269/43, 210, 236

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Primary Examiner—David M. Mitchell
Assistant Examiner—Kia M. Robinson
Attorney, Agent, or Firm—Barnes & Thornburg

[57] ABSTRACT

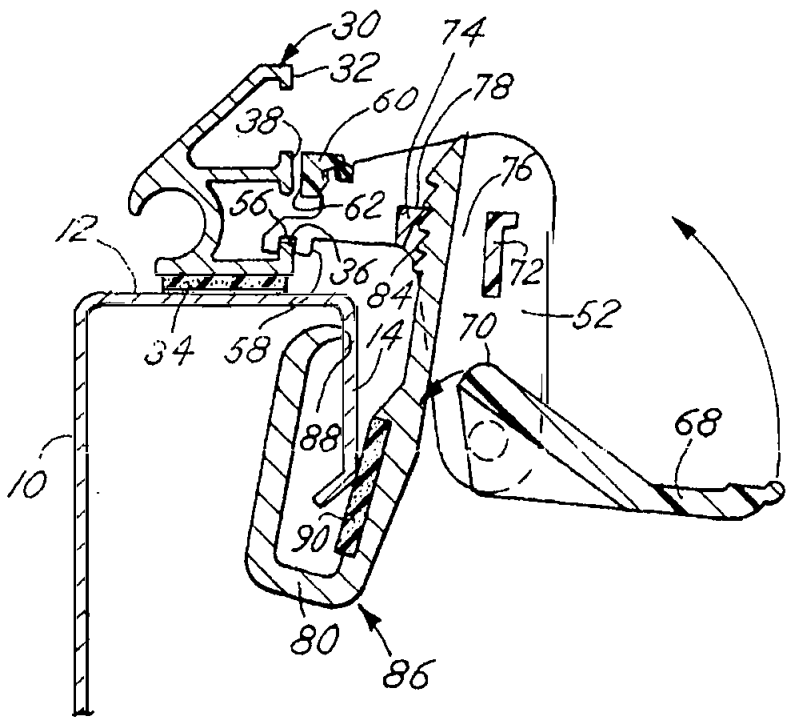
A tonneau cover assembly is provided having a rail system, a cover and one or more clamping mechanisms. The clamping mechanism includes a two-piece clamp. The first member is engageable with the rail, and includes an abutment mechanism thereon to contact the rail. The first member also includes a pivotable lever which can be used to exert a force on the second member. The first member includes an opening therein to receive the second member therethrough. The second member includes an extension having one or more teeth thereon. The extension is positioned through the opening in the first member, such that the teeth may engage a portion of the first member. The second member also includes a portion which is engageable with a vertical rail of the side wall of the vehicle. By actuating the lever, the clamp is positioned securely to the rail and the vehicle side wall.

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16 Claims, 2 Drawing Sheets



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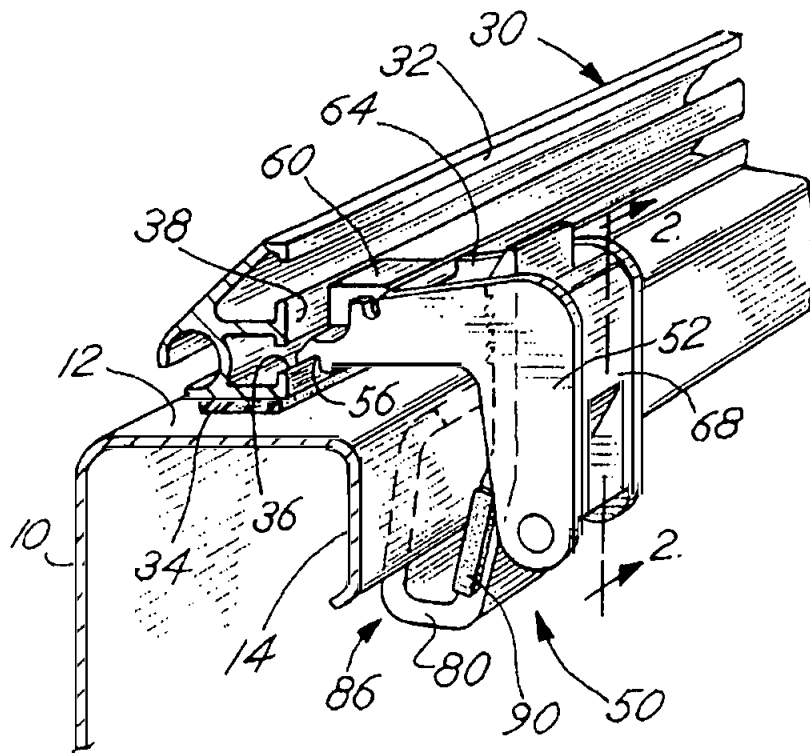


Fig. 1

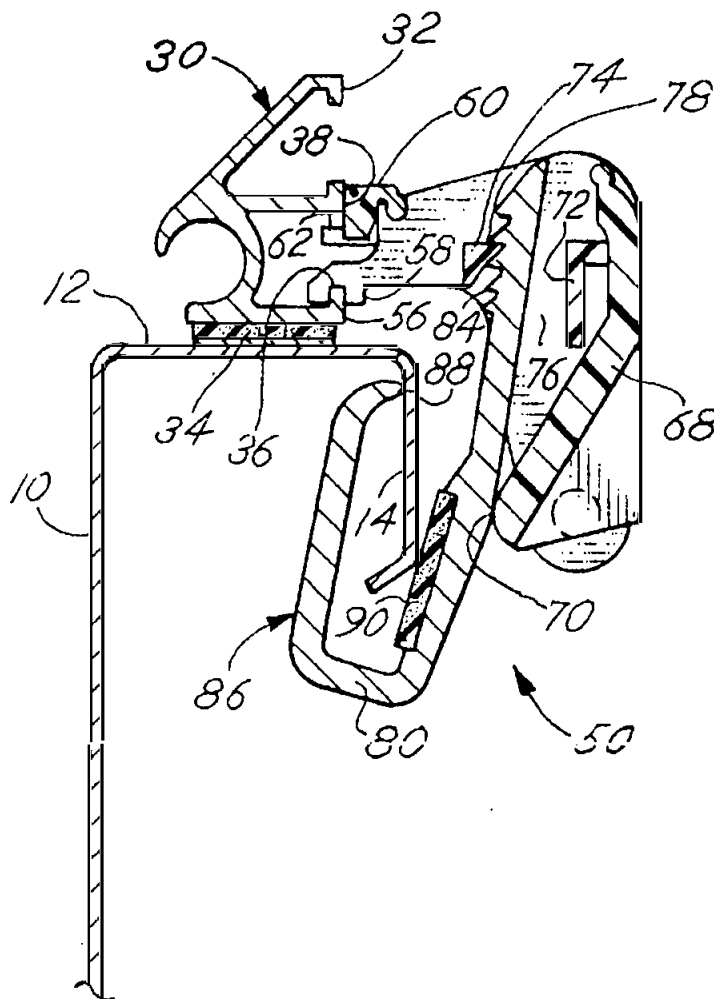


Fig. 2



US006030021A

United States Patent [19]

Ronai

[11] Patent Number: 6,030,021

[45] Date of Patent: Feb. 29, 2000

[54] BED COVER ASSEMBLY FOR A VEHICLE BED

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Primary Examiner—Dennis H. Pedder
Attorney, Agent, or Firm—Baker & Daniels

[21] Appl. No.: 08/775,963

[22] Filed: Jun. 3, 1997

[51] Int. Cl.⁷ B60P 7/04

[52] U.S. Cl. 296/98; 296/100.12; 296/100.18

[58] Field of Search 296/32, 34, 36,
296/98, 100.01, 100.04, 100.07, 100.15,
100.16, 100.17, 100.18, 100.12

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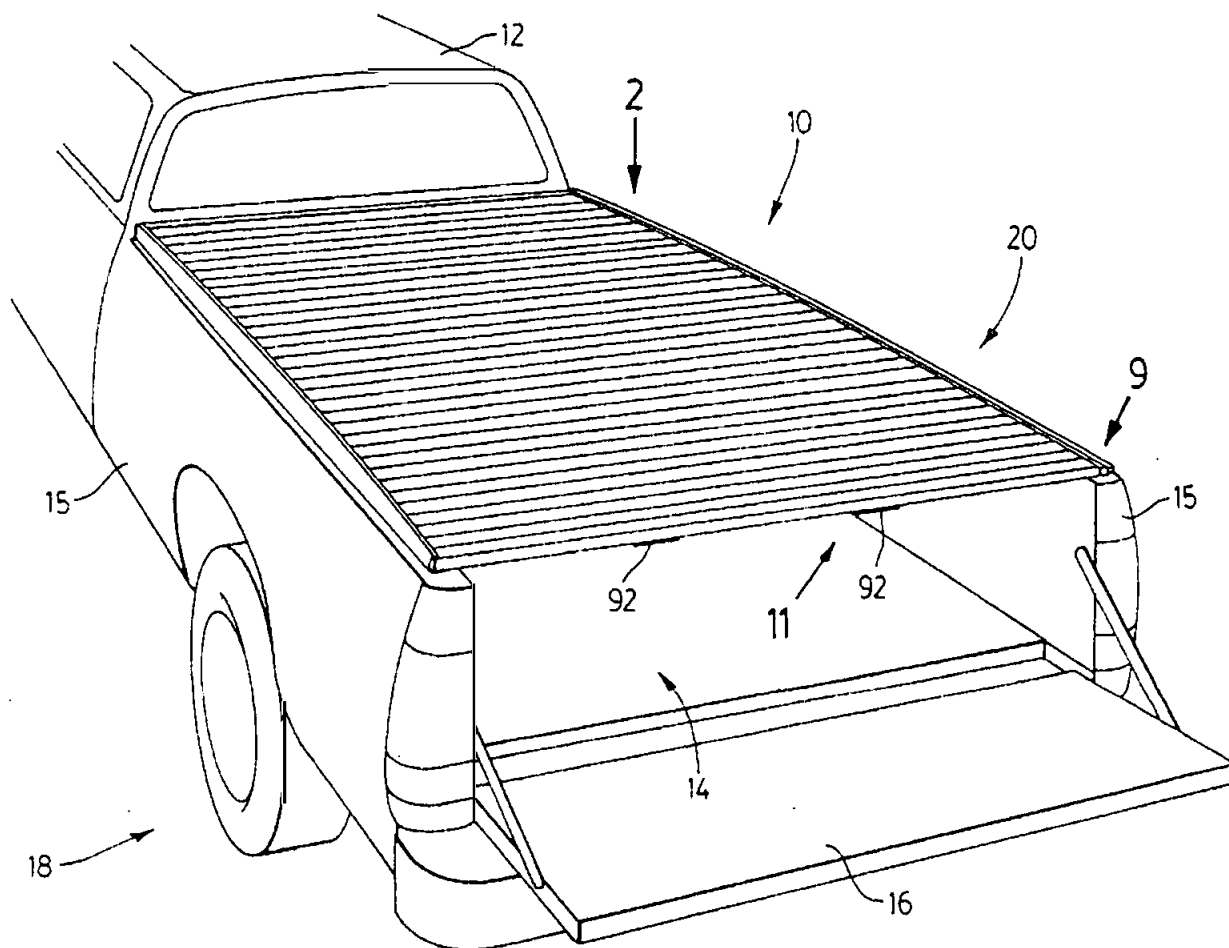
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[57] ABSTRACT

A bed cover assembly for a vehicle bed includes a pair of tracks to be secured to opposed sidewalls of the vehicle bed. A cover extendible between and engageable with the tracks over their lengths, carries formations which co-operate with formations on the tracks when the cover is in tension. A releasable locking mechanism maintains the cover under tension to inhibit separation of the co-operating formations when they are in mating engagement.

44 Claims, 14 Drawing Sheets



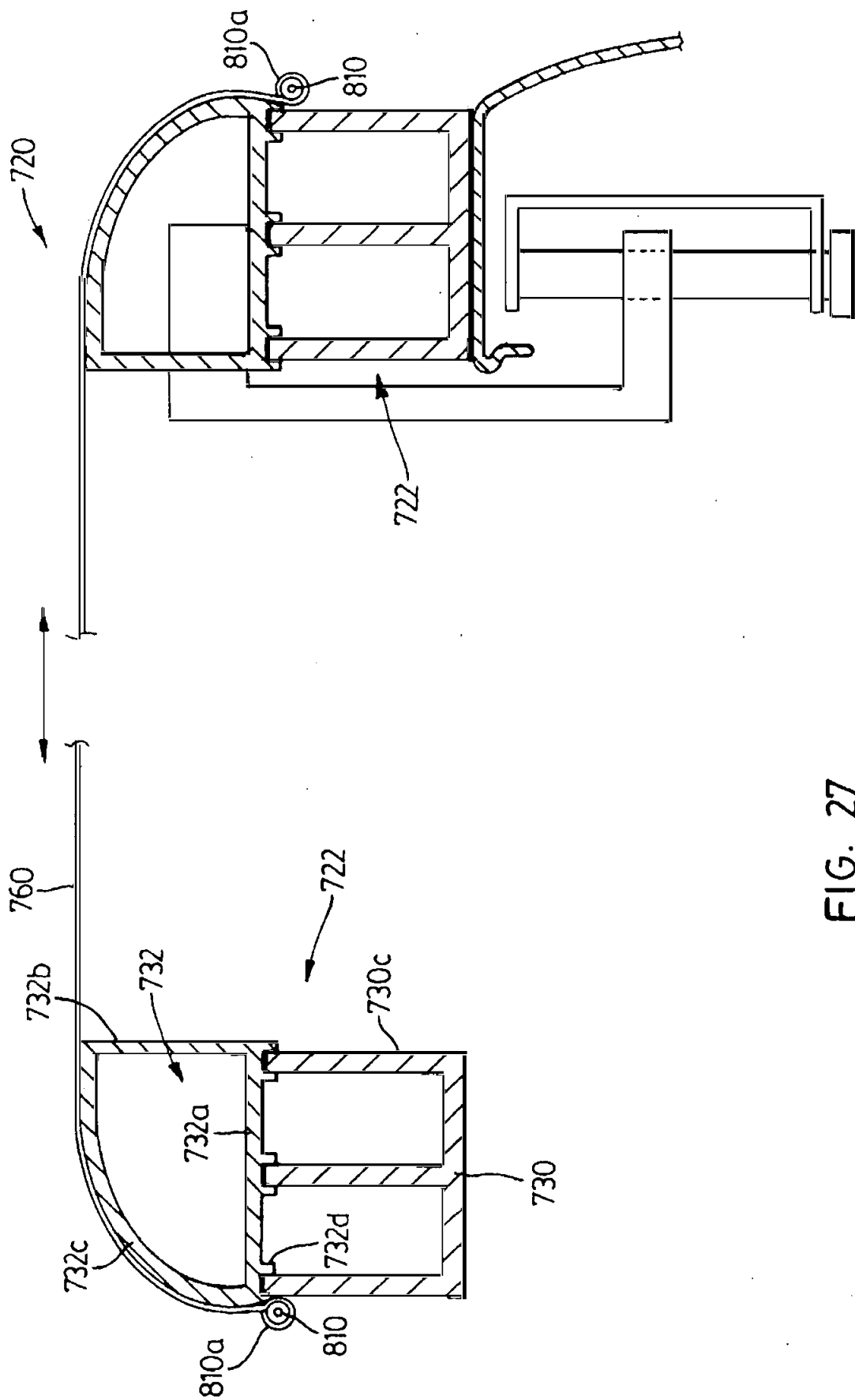


FIG. 27

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(12) **United States Patent**
Schall et al.

(10) **Patent No.: US 6,676,189 B2**
(45) **Date of Patent: Jan. 13, 2004**

(54) **COVER ASSEMBLY FOR A VEHICLE BED**

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(*) **Notice:** Subject to any disclaimer, the term of this
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(22) **Filed: Jan. 29, 2002**

(65) **Prior Publication Data**

US 2002/0113456 A1 Aug. 22, 2002

Related U.S. Application Data

(60) Provisional application No. 60/264,324, filed on Jan. 29,
2001.

(51) **Int. Cl.⁷ B60P 7/04**

(52) **U.S. Cl. 296/100.12; 296/100.15;
296/100.16**

(58) **Field of Search 296/100.11, 100.12,
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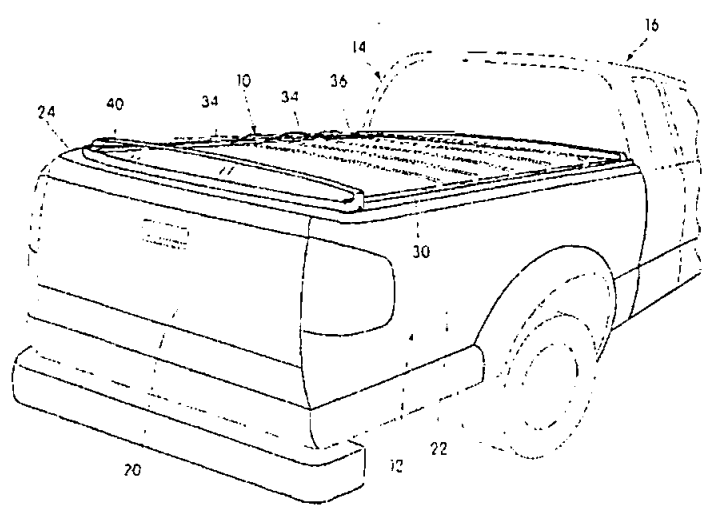
Primary Examiner—Joseph D. Pape

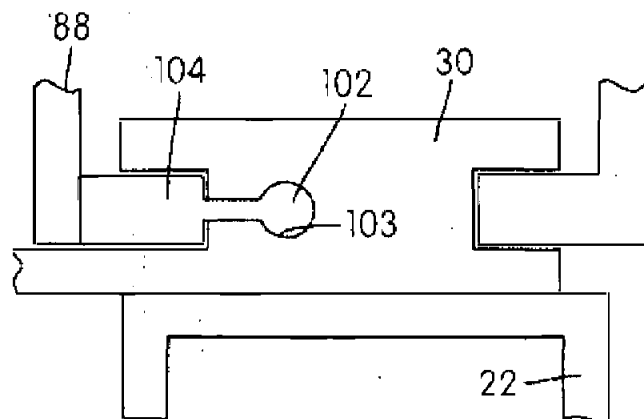
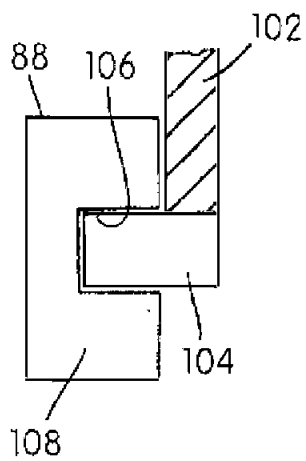
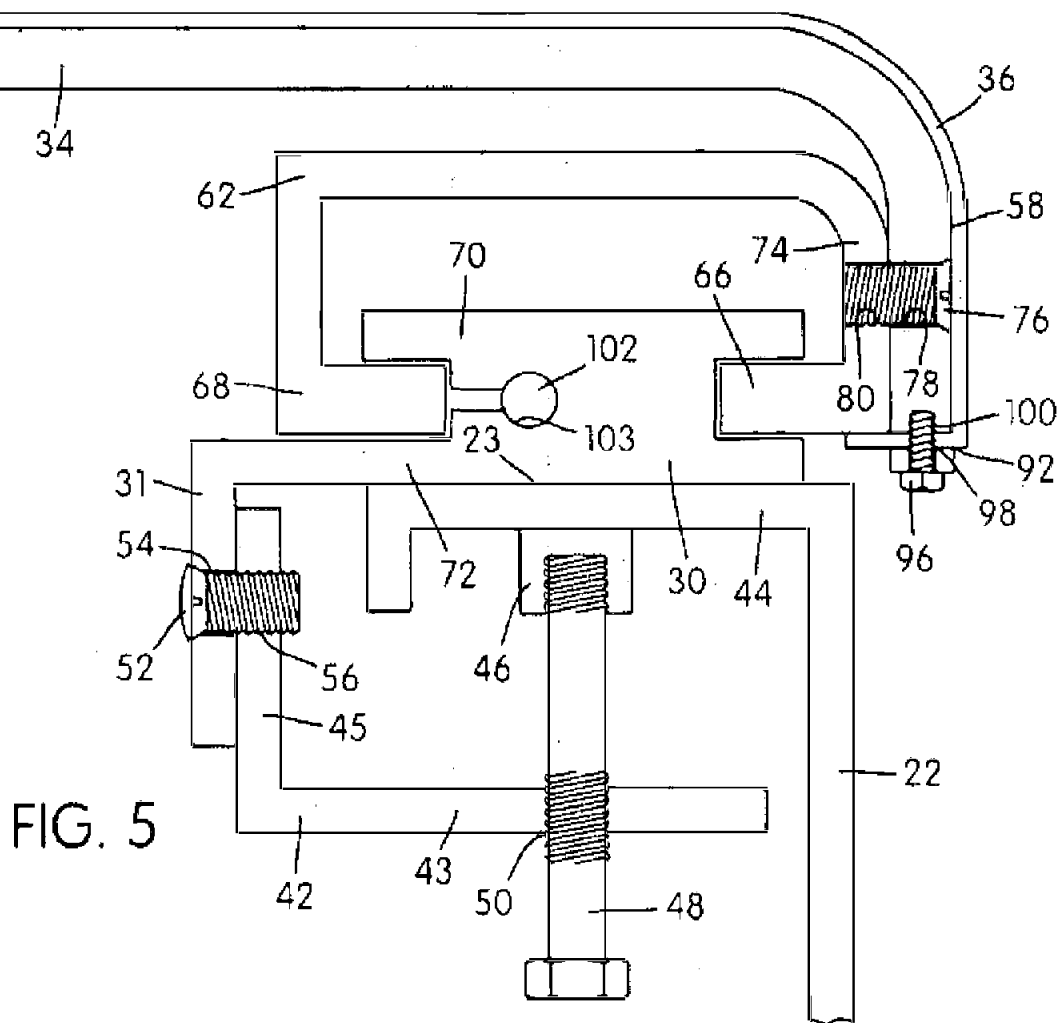
(74) *Attorney, Agent, or Firm*—Pillsbury Winthrop LLP

(57) **ABSTRACT**

A cover assembly for a vehicle bed includes track members, support members, a flexible cover, and a reversible motor. The support members are movably arranged on the track members such that (1) movement of a distal one of the support members in the opening or closing direction causes the distal support member to push or pull each of the other support members in a sequential manner in the opening or closing direction. A drive cable is engaged with a gear operatively connected to the motor in intermeshed relation such that (a) rotation of the gear by the motor in a first rotational direction pushes the cable in a distal direction to push the distal support member in the closing direction and (b) rotation of the gear in a second rotation direction pulls the cable in a proximal direction to pull the distal support member in the opening direction.

51 Claims, 35 Drawing Sheets





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FIG. 5 is a cross-sectional view illustrating the mounting of the track member to a side wall of the vehicle bed and the interconnection of the components of the cover assembly;

FIGS. 6A-6B are cross-sectional views illustrating a drive cable which is connected to a motor of the cover assembly being secured to a distal support member of the cover assembly;

FIG. 7 is a perspective view illustrating the distal support member of the cover assembly and folding mechanisms secured thereto;

FIG. 8 is a perspective view illustrating the distal support member of the cover assembly and an adjacent supporting member;

FIG. 9 is a side view illustrating the distal support member being moved to a fully closed position;

FIG. 10 is a side view illustrating the distal support member being pivoted to a locked position;

FIG. 11 is a side view illustrating the distal support member in the locked position;

FIG. 12 is a perspective view illustrating the distal support member in the locked position;

FIG. 13 is a perspective view illustrating the folding mechanism of the cover assembly;

FIG. 14 is a cross-sectional view illustrating the cover assembly securing an object in the vehicle bed;

FIG. 15 is a perspective view of a cover assembly for a vehicle bed constructed according to another embodiment of the present invention, the cover assembly being installed on a vehicle bed;

FIG. 16 is a perspective view illustrating the cover assembly shown in FIG. 15;

FIG. 17 is an exploded perspective view of the cover assembly of FIG. 15;

FIG. 18 is a cross-sectional view illustrating the mounting of the track member to a side wall of the vehicle bed and the interconnection of the components of the cover assembly of FIG. 15;

FIG. 19 is a perspective view illustrating a support member of the cover assembly of FIG. 15 and a fold initiating mechanism secured thereto;

FIG. 20 is an enlarged perspective view showing the connection between a sliding member, a support member, and a fold initiating mechanism of the cover assembly shown in FIG. 17;

FIG. 21 is a perspective view illustrating the cover assembly shown in FIG. 15 with the fold initiating mechanisms in an upwardly pivoted position;

FIG. 22 is a perspective view illustrating the cover of the cover assembly in a fully collapsed and folded condition;

FIG. 23 is an enlarged perspective view showing the motor of the cover assembly shown in FIG. 17;

FIG. 24 is another enlarged perspective view showing the motor of the cover assembly shown in FIG. 17;

FIG. 25 is a bottom view of a motor unit of the motor illustrating a gear of the motor unit intermeshed with drive cables of the cover assembly;

FIG. 26 is a perspective view illustrating an embodiment of the cover tensioner of the cover assembly;

FIG. 27 is another perspective view of the cover tensioner shown in FIG. 26;

FIG. 28 is an enlarged perspective view showing another embodiment cover tensioner of the cover assembly;

FIG. 29 is a cross-sectional view of the cover tensioner shown in FIG. 28;

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FIG. 30 is an enlarged perspective view showing the distal support member of the cover assembly shown in FIG. 17;

FIG. 31 is a cross-sectional view illustrating the distal support member being moved to a cover tensioning position;

FIG. 32 is a cross-sectional view illustrating the distal support member being pivoted to a cover tensioning position;

FIG. 33 is a cross-sectional view illustrating the distal support member in the cover tensioning position;

FIG. 34 is a perspective view of another embodiment of the sliding member of the distal support member;

FIG. 35 is a cross-sectional view illustrating the distal support member of FIG. 34 being moved to a cover tensioning position; and

FIG. 36 is a cross-sectional view illustrating the distal support member of FIG. 34 in the cover tensioning position.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

FIGS. 1-3 show a cover assembly 10 for a vehicle bed 12 constructed according to an exemplary embodiment of the present invention. The vehicle bed 12 is mounted rearwardly of a vehicle cab 14 of a vehicle 16. As is conventional, the vehicle cab 14 is designed to accommodate passengers, including a driver, and has the various controls for operating the vehicle 16. In the embodiment shown, the vehicle is a pick-up truck with the vehicle bed 12, or truck bed, having front and rear end walls 18, 20, first and second side walls 22, 24 extending perpendicularly between the front and rear end walls 18, 20, and a floor 26. The first and second side walls 22, 24, the front and rear end walls 18, 20, and the floor 26 define an interior space 28 therebetween for transporting objects. The rear end wall 20 may be a pivotally mounted tailgate for facilitating loading and unloading of the truck bed 12, or it may be fixedly secured in position. It is also contemplated that the front end wall 18 may be a rear wall of the vehicle cab 14.

The cover assembly 10 comprises first and second elongated track members 30, 32, a plurality of transverse support members 34, a flexible cover 36, and a motor 38. The plurality of transverse support members 34 includes a distal support member 40, as will be further discussed below.

The first track member 30 is mountable to the first side wall 22 and the second track member 32 is mountable to the second side wall 24. In the illustrated embodiment, the first and second track members 30, 32 are mounted to upper surfaces 23, 25 of respective first and second side walls 22, 24 by a plurality of clamps 42. FIG. 5 illustrates a clamp 42 mounting the first track member 30 to the first side wall 22. The second track member 32 is mounted to the second side wall 24 in a similar manner. As shown in FIG. 5, the clamp 42 is generally L-shaped with one leg 43 secured to a flange portion 44 of the first side wall 22 and the other leg 45 secured to a downwardly extending portion 31 of the first track member 30. Specifically, the flange portion 44 includes a screw block 46 mounted thereto by welding, for example. The screw block 46 is mounted to a screw pin 48 and provides tension when tightened to flange portion 44 upon threading of screw pin 48 to screw block 46 and to threaded hole or slot 50 in the one leg 43 of the clamp 42. The other leg 45 and downwardly facing portion 31 are positioned adjacent one another and are secured by a fastener, such as a screw 52, that extends through threaded slots 54, 56 in the downwardly extending portion 31 and the other leg 45 respectively.

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The first and second track members 30, 32 may be removably mounted to the first and second side walls 22, 24 by any other suitable method, such as bolts extending through the flange portion 44 and directly into cooperating threaded holes in the first and second track members 30, 32. Likewise, the first and second track members 30, 32 may be fixedly mounted to the first and second side walls 22, 24 by welding or riveting, for example.

In the illustrated embodiment, the first and second track members 30, 32 are constructed and arranged to slidably mount each of the plurality of support members 34. Each of the plurality of transverse support members 34 have first and second end portions 58, 60. The first end portions 58 are mountable on the first track member 30 and the second end portions 60 are mountable on the second track member 32 to enable the support members 34 to be moved in opposing, opening and closing directions along the first and second track members 30, 32, respectively.

Specifically, the first and second end portions 58, 60 of each of the support members 34 include respective first and second sliding members 62, 64 secured thereto. The first and second sliding members 62, 64 are slidably mounted on respective first and second track members 30, 32. FIGS. 4-5 illustrate the first sliding member 62 of the first end portion 58 slidably mounted on the first track member 30. The second sliding member 64 is slidably mounted on the second track member 32 in a similar manner. As shown in FIGS. 4-5, the first sliding member 62 is generally C-shaped in cross-section with a pair of inwardly extending flange portions 66, 68, the open end of the C-shaped first sliding member 62 facing downwardly towards the first track member 30. The first track member 30 is generally I-shaped in cross-section such that the pair of inwardly extending flange portions 66, 68 are slidably received between the upper and lower portions 70, 72 of the first track member 30. The first end portion 58 of the support member 34 is mounted on an outer leg 74 of the first sliding member 62 by one or more fasteners, such as a screw 76, that extend through slots 78 in the first end portion 58 and into cooperating threaded slots 80 in the first sliding member 62 respectively.

The first and second sliding members 62, 64 may comprise rolling members such that the support members 34 may roll along the first and second track members 30, 32. Also, the first and second sliding members 62, 64 may be integrally formed with the support members 34. Likewise, the first and second end portions 58, 60 of the support members 34 may be mounted to the first and second track members 30, 32 by any other suitable method, such that each of the support members 34 may be moveable in opposing opening and closing directions along the first and second track members 30, 32, respectively.

As aforementioned, the plurality of support members 34 includes the distal support member 40. In the illustrated embodiment, the distal support member 40 is positioned the most distant from the front end wall 18 with respect to the remaining plurality of support members 34. The distal support member 40 includes a support member 82 having first and second end portions 84, 86 pivotally mountable to first and second sliding members 88, 90. Similar to the first and second sliding members 62, 64 described above, the first and second sliding members 88, 90 are slidably mounted on respective first and second track members 30, 32.

In the illustrated embodiment, the flexible cover 36 is secured to each of the plurality of transverse support members 34, including the distal support member 40. The cover 36 is preferably constructed of fabric, vinyl, or any other

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suitable textile material. The cover 36 may be secured to the transverse support members 34, the first and second end portions 58, 60 of the support members 34, the sliding members 62, 64, and the distal support member 40 at the first and second end portions 84, 86 by any suitable method such as fasteners, gluing and vibration welding, for example. In the illustrated embodiment, edges 92, 94 of the cover 36 are secured to the first and second end portions 58, 60 of the support members 34 (and the first and second end portions 84, 86 of the distal support member 40), respectively, by one or more fasteners, such as a screw 96. FIG. 5 illustrates the edge 92 of the cover 36 secured to the first end portion 58 of the support member 34. The edge 94 is secured to the second end portion 60 of the support member 34 (as well as the first and second end portions 84, 86 of the distal support member 40) in a similar manner. As shown in FIG. 5, the edge 92 has a hole 98 that is aligned with a corresponding threaded hole 100 formed into a downwardly facing surface of the first end portion 58 of the support member 34. The screw 96 is then inserted through the hole 98 and into the threaded hole 100 to secure the cover 36.

The support members 34 and the distal support member 40 are movably arranged on the first and second track members 30, 32 such that movement of the distal support member 40 in the opening direction towards the front end wall 18 causes the distal support member 40 to push each of the other support members 34 in a sequential manner in the opening direction and hence sequentially collapses the cover 36 secured thereto, thereby facilitating access to the interior space 28 of the vehicle bed 12. Movement of the distal support member 40 along the first and second track members 30, 32 in the closing direction towards the rear end wall 20 causes the distal support member 40 to pull the other support members 34 in a sequential manner in the closing direction and hence sequentially moves the cover 36 secured thereto into covering relation to the interior space 28 of the vehicle bed 12. In its fully closed position, the cover assembly 10 limits access from the top to the interior space 28 of the vehicle bed 12.

Referring to FIGS. 2-3, the cover assembly 10 includes six support members 34, referenced as 34(a) through 34(f) respectively. The cover assembly may include fewer or additional support members 34 than illustrated. As the distal support member 40 is moved towards the front end wall 18 in the opening direction, the distal support member 40 will contact the adjacent support member 34(a) and push the same towards the front end wall 18. Because the cover 36 folds upwardly between the support members 34, the distal support member 40 does not physically contact the adjacent member 34(a) but instead transfers force through the collapsed cover 36 therebetween. As the distal support member 40 and the support member 34(a) continue to move towards the front end wall 18, the support member 34(a) will contact the adjacent support member 34(b) and push the same towards the front end wall 18. The distal support member 40 will continue pushing the support members 34 in sequence, as described above, until all the support members 34(a) through 34(f) are contacting one another which will move the cover 36 secured thereto to a fully open position thereby facilitating access to the interior space 28. The distal support member 40 may also move to any one of a plurality of intermediate open positions thereby permitting access to a portion of the interior space 28.

Similar to the movement described above, as the distal support member 40 is moved towards the rear end wall 20 in the closing direction, from a fully open position for example, the distal support member 40 will pull the adjacent

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