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MINISTERIO DE COMERCIO INDUSTRIA Y T
SUPERINTENDENCIA DE INDUSTRIA Y COM
DIVISION DE NUEVAS CREACIONES
E. S.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 06-016530- -00002-0000

Fecha: 2007-11-15 15:52:26 Dep. 2020 NUECREACIONE
Tra 10 PATENTEYII Eve: 378 FASENACIONALI
Art. 539 PETICION Folios: 2

REFERENCIA : SOLICITUD DE PATENTE DE INVENCION
DISPOSITIVO PROTECTOR PARA PASAMANOS DE
ESCALERA MOVIL EXPEDIENTE No. 06016530
CODIGO : 01 - 01 - 09

Yo, **LAURA MICHELSEN NIÑO**, mayor de edad, domiciliada en la ciudad de Bogotá, D.C., República de Colombia, abogada titulada e identificada como aparece al pie de mi firma, en mi calidad de apoderada de la sociedad **I & K INTERNATIONAL Co., LTD.**, existente y organizada conforme a las leyes de Corea, con domicilio en la ciudad de Seul, Corea, por medio de la presente me permito solicitar que se efectúe el examen de patentabilidad de la invención de la referencia, teniendo en cuenta lo siguiente:

1. Que el artículo 44 de la Decisión 486 de la Comunidad Andina establece que dentro del plazo de seis (6) meses contados desde la publicación de la solicitud el solicitante debe pedir que se examine si la invención es patentable.
2. Que la patente de la referencia fue publicada en la Gaceta de Propiedad Industrial No. 579 del treinta y uno (31) de agosto de dos mil siete (2007), y como tal se está dentro del término indicado para solicitar el mencionado examen.
3. Adjunto a la presente anexo el recibo de pago correspondiente a los derechos oficiales por el presente trámite.

De la Señora Jefe,

LAURA MICHELSEN NIÑO

C.C. No. 39.783.287 de Usaquén

T.P.A. No. 45.265 del C.S de la J.

I&K9/HPR
COLO 1946 0301 25061

ESTOY CERTIFICACION DE EXCEDENTE DE PAGO SOLO PODRA SER UTILIZADA
COMO PARTE DE LA CANCELACION DE UNA TARIFA VIGENTE Y NO PODRA SER
SUSTITUIDA POR NINGUN RECIBO.

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 08-016530 -00002-0000

Fecha: 2007-11-15 15:52:28 Dep. 2020 NUECREACIONE
Tra. 11 PATENTE BIYU Eje: 378 FASENACIONALI
Act. 538 PETICION Folios: 2

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

RECIBO OFICIAL DE CAJA : 07 - 92,975
FECHA : NOVIEMBRE 15 DE 2007

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
TRIANA URIBE & MICHELSEN CONSIGNACION		BANCO POPULAR	050-00110-6	72391521	15/11/2007	6,099,000.00

***** CONCEPTO *****

RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1 50005-01-01 SOLICITUDES	85 EXAMEN DE PATENTABILIDAD DE INVEN	404,000.00
	TOTAL :	\$ 404,000.00

SON: CUATROCIENTOS CUATRO MIL PESOS

RESPONSABLE : _____

RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

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Industria y Comercio
SUPERINTENDENCIA

DIVISIÓN DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No. 06-16530

EL EXTRACTO DE LA PRESENTE SOLICITUD DE **PATENTE DE INVENCION**

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No **579** DE

FECHA **31 DE AGOSTO DE 2007** EL TÉRMINO HÁBIL SEÑALADO POR LA

LEY EXPIRA EL **28 DE NOVIEMBRE DE 2007**

NOTA: Dentro del plazo de los seis (6) 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 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO X

United States Patent [19]

Lin et al.

[11] Patent Number: **4,934,512**

[45] Date of Patent: **Jun. 19, 1990**

[54] **CLEANING DEVICE FOR ARMREST BELT
CONVEYOR OF THE ELECTRIC
ESCALATOR**

[76] Inventors: Hwang F. Lin, No. 21, Pa Te Road,
Chi Tu District, Keelung, Taiwan;
Se K. C. Wu, 2-6-10 Ta Sen Nan, Ta
Tien District, Tokyo, Japan

[21] Appl. No.: 324,436

[22] Filed: Mar. 16, 1989

[51] Int. Cl.³ B65G 45/00

[52] U.S. Cl. 198/495; 198/497;
198/338

[58] Field of Search 198/335, 337, 338, 494,
198/495, 497; 15/256.5, 256.51, 256.52, 256.6

[56] **References Cited**

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2505874 8/1976 Fed. Rep. of Germany 198/495
0051183 4/1979 Japan 198/495
0914432 3/1982 U.S.S.R. 198/495
1022899 6/1983 U.S.S.R. 198/495

Primary Examiner—David A. Bucci

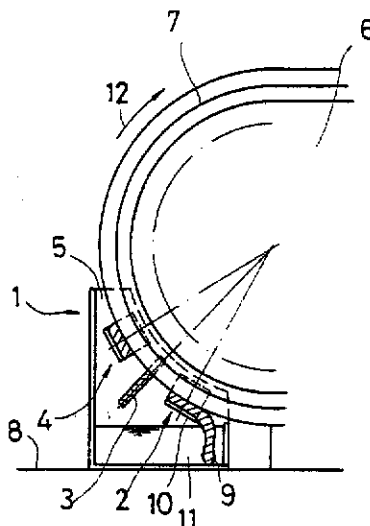
Assistant Examiner—D. Glenn Dayoan

Attorney, Agent, or Firm—Ostrolenk, Faber, Gerb &
Soffen

[57] ABSTRACT

An apparatus for cleaning an armrest belt conveyor of an escalator. The apparatus permits use of the escalator during cleaning. Preferably, excess cleaner can be scraped off from the conveyor and reused.

14 Claims, 2 Drawing Sheets



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FIG. 1

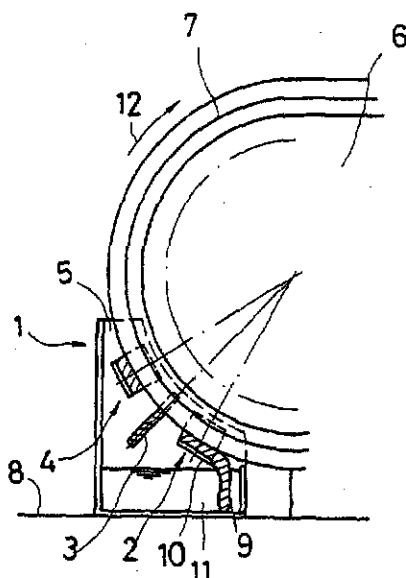
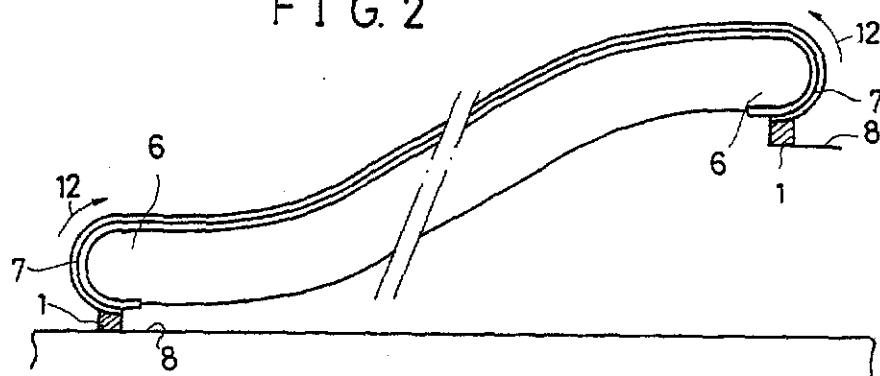


FIG. 2



CLEANING DEVICE FOR ARMREST BELT CONVEYOR OF THE ELECTRIC ESCALATOR

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a cleaning device for cleaning and/or sterilizing an armrest belt conveyor of an electric escalator.

2. Description of the Related Art

A conventional cleaning device for cleaning an armrest belt conveyor of an electric escalator is illustrated in FIG. 3. The conventional cleaning device includes a spreader C which spreads cleanser on the surface of the armrest belt conveyor B as the conveyor B moves on an armrest A. A scraper D scrapes excess cleanser from the surface of the conveyor B. A container E holds the cleanser which is scraped off by the scraper D. A wiping device F wipes the surface of the conveyor B. The spreading device C, the scraper D, and the wiper F are arranged, in turn, on the conveyor B.

The spreader C is formed of a strong liquid absorbent material G and a cleanser container I. The material G contacts the surface of the conveyor B and the cleanser container I covers the material G. The container I has a cleanser providing hole H therein. A supporter J fixes the container I on the armrest A.

The scraper D has an opening which fits the upper rim of the conveyor B so as to contact the upper part of the conveyor B. The scraper D has two side ends which droop down to the container E.

A block L is formed so as to properly fit the conveyor B. The block L presses a wiper K of the device F close to the conveyor B. A string M connects the spreader C, the scraper D, and the wiping device F at the desired spacing.

In operation, cleanser is poured into the container I. While the conveyor B is moving, the cleanser flows through the hole H, permeates the material G, and is spread onto the surface of the conveyor B. Excess cleanser scraped from the conveyor B drops directly into the container E. The wiper K wipes the surface of the conveyor B clean.

Disadvantageously, when the device illustrated in FIG. 3 is used to clean the conveyor B, the conveyor B cannot be used. This is because the cleaning device must be equipped on the upper part of the conveyor B so that the cleanser permeates the material G by gravity.

Another disadvantage is that the cleanser scraped off by the scraper D flows down into the container E. Scraped off cleanser cannot be sent back into the container I for reuse.

SUMMARY OF THE INVENTION

A main object of the invention is to solve the disadvantages of the prior art.

The present invention is directed toward an apparatus for cleaning an armrest belt conveyor of an escalator, the apparatus including: (A) a container for containing a supply of cleaning liquid, the container being dimensioned so as to fit beneath the armrest belt conveyor of the escalator at a lower front end of the armrest belt conveyor so as not to interfere with the use of the escalator; and (B) a spreading device located within the container, the spreading device including: (a) a lower absorbent end for absorbing cleaning liquid upwardly from the supply of cleaning liquid; and (b) an

upper end for spreading cleaning liquid onto the armrest belt conveyor during use of the escalator.

With the present invention, the electric escalator can be used during cleaning. Therefore, the armrest belt conveyor can be frequently cleaned and sterilized so as to ensure its sanitation and tidiness.

Furthermore, excess cleanser scraped off by the scraper automatically drops back down into the container for reuse.

Other features and advantages of the present invention will become apparent from the following description of preferred embodiments of the invention, with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a cleaning device in accordance with the invention;

FIG. 2 is a side view illustrating the position of the cleaning device with respect to an armrest belt conveyor of an electric escalator; and

FIG. 3 illustrates a conventional device for cleaning an armrest belt conveyor of an electric escalator.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1 and 2, a preferred embodiment in accordance with the invention includes a container 1, a spreading device 2, a scraper 3, and a wiping device 4. The spreading device 2, the scraper 3, and the wiping device 4 are located within the container 1. The container 1 is a bottom air-proof utensil. The container 1 includes a short wall, a tall wall, and two arched side walls. The side walls form a two-sided plank 5 on whose upper rim is an arched opening designed to fit matching arches on the bottom part of an armrest of an electric escalator near where an armrest belt conveyor 7 moves upwardly from an exit on a floor 8. The opening of the two-sided plank 5 fits the arched part of the conveyor 7 very well. The container 1 is set on the two edges of the electric escalator.

A spreading device 2 (including a strong liquid absorbent material 9 and a cover 10) is connected to the opening of the two-sided plank, adjacent one side of the opening of the two-sided plank, adjacent one side of the escalator. The upper end of the material 9 is fastened by the cover 10 which is, in turn, connected to the outer rim of the conveyor 7. The lower end of the material 9 contacts the bottom of the container 1. This makes it easier to absorb the mixture of cleanser and bactericide stored in the container 1. When the conveyor 7 is running in the direction indicated by the arrow 12, the mixture is spread onto the surface of the conveyor 7.

The scraper 3 and the wiping device 4 are structurally similar to the scraper D and the wiping device E of the conventional device illustrated in FIG. 3. The scraper 3 and the wiping device 4 follow the running direction of the conveyor 7 in turn. The difference is that excess mixture 11 on the surface of the conveyor 7 which is scraped off by the scraper 3 automatically falls by gravity into the container 1 for reuse, i.e., to be reabsorbed by the lower absorbent end of the spreading device 2. The mixture of cleanser and bactericide is thus saved.

The cleaning device can be used without discontinuing use of the escalator since the cleaning device is fitted on the floor 8 where the conveyor 7 rises upwardly from the exit.

The invention ensures cleanliness and sanitation.

United States Patent [19]

Saito et al.

[11] Patent Number: 5,040,659

[45] Date of Patent: Aug. 20, 1991

[54] INDICATING APPARATUS FOR PASSENGER CONVEYOR, INDICATING BODY USED THEREFOR AND METHOD OF ASSEMBLING THE APPARATUS

[75] Inventors: Chuichi Saito; Masamitsu Hanano, both of Katsuta; Hideo Kuwajima, Sapporo, all of Japan

[73] Assignees: Hitachi, Ltd., Tokyo; Hitachi Elevator Engineering Co., Ltd., Katsuta, both of Japan

[21] Appl. No.: 428,895

[22] Filed: Oct. 30, 1989

[30] Foreign Application Priority Data

Nov. 9, 1988 [JP] Japan 63-281247

[51] Int. Cl.⁵ B66B 29/08

[52] U.S. Cl. 198/324; 198/335

[58] Field of Search 198/324, 335, 337, 338

[56] References Cited

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Primary Examiner—D. Glenn Dayoan

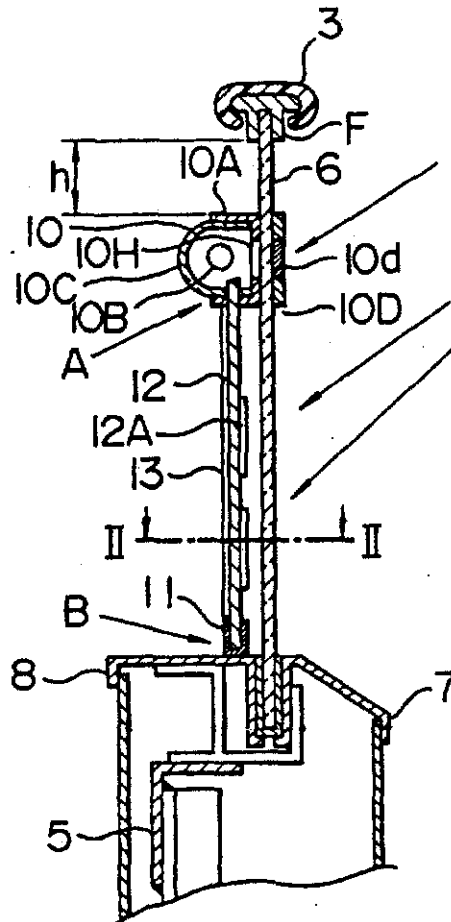
Attorney, Agent, or Firm—Fay, Sharpe, Beall, Fagan, Minnich & McKee

[57]

ABSTRACT

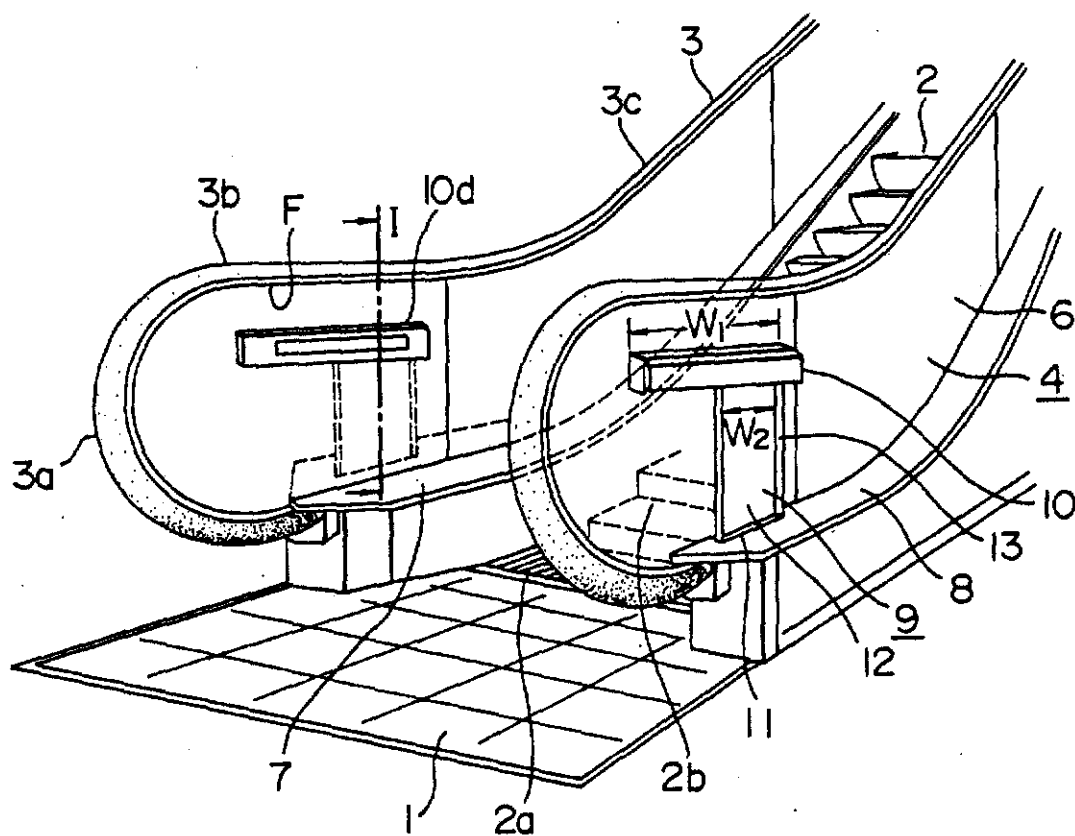
Indicating apparatus for passenger conveyor includes an indicating body arranged near a platform of the conveyor and outside a balustrade panel. The indicating body is located and secured at a position where the upper edge thereof is downwardly apart from a frame which is mounted on the upper edge of the balustrade panel for supporting a moving handrail.

18 Claims, 5 Drawing Sheets



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FIG. 1



INDICATING APPARATUS FOR PASSENGER CONVEYOR, INDICATING BODY USED THEREFOR AND METHOD OF ASSEMBLING THE APPARATUS

FIELD OF THE INVENTION

The present invention relates to an indicating apparatus for a passenger conveyor, such as an escalator or an electrically driven pathway, and an indicating body used therefor and a method of assembling the apparatus.

DESCRIPTION OF THE RELATED ART

Heretofore, there is known, as disclosed in Japanese Patent Unexamined No. 61-287692, an indicating apparatus having an indicating body disposed on a balustrade at a position near to a platform for indicating information for passengers and for providing an improved decorative design of the apparatus.

In the above-mentioned arrangement, since a gap exists between the indicating body and the balustrade panel, there may be a risk that, when a passenger gets on the conveyor with his hand reached outward and downward of the moving handrail, his fingertip may be inserted into the above-mentioned gap formed at the upper end of the indicating body.

SUMMARY OF THE INVENTION

An object of the present invention is to provide an indicating apparatus for a passenger conveyor having an improved safety.

Another object of the present invention is to provide an indicating apparatus for a passenger conveyor which is supported with a sufficient stability.

Still another object of the present invention is to provide an indicating apparatus for a passenger conveyor in which an indicated information can be easily replaced and the maintenance and assembling of the apparatus are also easy.

For achieving these objects, in the present invention, an upper end of an indicating body, which is disposed outside the balustrade panel, is located at a position downwardly spaced apart from a frame which carries a moving handrail and is fixed to the panel.

Further, there are provided holding devices for supporting the upper and lower portions of the indicating body in a manner that the indicating body can be easily mounted and removed.

By virtue of the above-mentioned arrangement of the present invention, a risk of fingertip insertion into a gap above a indicating body is avoided, resulting in an improved safety of the apparatus, and the indicating body is surely supported with a sufficient stability. Further, since the indicating body is easily mounted and removed, the apparatus can be easily assembled, and the content of indication can be also easily changed.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of an indicating apparatus for a passenger conveyor according to an embodiment of the present invention,

FIG. 2 is an enlarged cross-sectional view taken on line I—I of FIG. 1,

FIG. 3 is a left side view of the apparatus shown in FIG. 1,

FIG. 4 is an enlarged cross-sectional view taken on line II—II of FIG. 2,

FIG. 5 is an enlarged view of the portion indicated with arrow A in FIG. 2,

FIG. 6 is an enlarged view of the portion indicated with arrow B in FIG. 2,

FIG. 7 to FIG. 9 are views similar to FIG. 2, showing the other embodiments according to the present invention, and

FIG. 10 is a cross-sectional view showing a main portion of an embodiment of an indicating body according to the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1 to 6, an embodiment of the present invention applied to an escalator will be described below.

The basic structure of the escalator is conventional, and includes an endless step 2 moving along a horizontal path 2a and a slant path 2b from a platform 1 to another platform (not shown) and moving handrails moving in synchronism with the motion of the step along a turning path 3a, a horizontal path 3b and a slant path 3c. The moving handrail 3 is guided by a balustrade 4, which is supported by a main frame 5.

In general, the balustrade 4 includes a balustrade panel 6 made of a transparent reinforced glass and a frame F mounted on the upper portion of the balustrade panel 6 for guiding the moving handrail 3, and is fixed to the main frame 5 at its lower portion. The lower portion of the balustrade panel 6 to be fixed to the frame is covered by an inner deck cover 7 and an outer deck cover 8 at the inner side and the outer side of the panel, respectively.

In the above-mentioned escalator, an indicating apparatus 9 is disposed outside of the balustrade panel 6 at a position downwardly apart by a distance h (in FIG. 2) from the frame F of the horizontal path 3b of the moving handrail 3 near the platform 1. The indicating apparatus 9 includes an upper holder 10, a lower holder 11 and an indicating panel 12 indicating an indication content 12A. The upper holder 10 includes a support member 10A secured to the outside surface of the balustrade panel 6 and having a cross-sectional of a laterally turned U letter shape. An illuminating lamp 10B is disposed inside of the support member 10A, and an illuminating cover 10C is provided for covering the lamp and closing the opening of the support member. The support member 10A is formed with an aperture 10H at a surface opposed to the balustrade panel 6 (bottom surface of the U-shaped cross-section) for permitting the light of the lamp to penetrate the support member towards the balustrade panel 6. Further, the support member 10A includes an indicating body 10D having a transparent indicating portion 10d disposed on the inside surface of the balustrade panel 6. The indicating portion 10d has an information 10e (FIG. 5) such as letters, symbols, or patterns, which may be written, carved on the base plate of the indicating portion 10d, or may be written on a film adhered to the base plate for providing a passenger guide service. In addition, the support member 10A and the illuminating cover 10C are formed with grooves N and M, respectively, at the respective lower portions, into which the upper end of the indicating panel 12 is inserted.

The lower holder 11 has a U-shaped cross-section for receiving the lower end of the indicating panel 12, and the bottom of the holder is fixed to the outer deck cover 8 by means of screws 11D. The lower holder 11 in-

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cludes side walls 11A and 11B and an end wall 11C for receiving the indicating panel 12.

For fitting the indicating panel 12 between the upper holder 10 and the lower holder 11, the indicating panel 12 is so sized as to have a height greater than the distance from the lower surface of the upper holder 10 to the bottom of the lower holder 11 by a slight length Q, and firstly, the upper portion of the indicating panel is inserted into the grooves M and N in a direction indicated with arrow Pa by a distance corresponding to the depth of the U-shaped groove of the lower holder 11, and next, the lower end of the indicating panel 12 is lowered and inserted into the lower holder 11 in a direction indicated with arrow Pb. Thus, the indicating panel is held at the upper end portion thereof having the before-mentioned length Q, and is held at the lower end by the U-shaped lower holder. The breadth W₁ of the upper holder 10 is determined to be wider than the breadth W₂ of the indicating panel 12 for covering the upper edge of the indicating panel 12.

Along a side edge of the indicating panel 12 on the opposite side of the end wall 11C of the lower holder 11 there is disposed a hollow pillar 13 extending between the upper holder 10 and the lower holder 11, and wires 14 for supplying a electric power to the illuminating lamp 10B are passed through the hollow space of the pillar 13.

In the above-mentioned arrangement of the indicating apparatus according to the illustrated embodiment, since the upper end of the indicating panel 12 is downwardly apart from the frame F supporting the moving handrail 3 and covered by the upper holder 10 having a long breadth W₁, the fingertip of a passenger touches only on the upper holder 10 when the finger is moved over the indicating panel 6. Due to the touch of the finger on the upper holder 10, the passenger retracts his hand, thereby preventing his finger from being moved farther, caught by an edge of the indicating panel 12, or inserted into a gap between the indicating panel 12 and the balustrade panel 6.

Further, since the indicating panel 12 is held at its upper and lower portions by the upper holder 10 and the lower holder 11, respectively, the support of the indicating panel is very stable and can not be easily displaced even in case a child playing near the escalator shakes the indicating panel 12.

Further, since the indicating panel 12 can be mounted or removed by vertically moving the indicating panel relative to the upper holder 10 and the lower holder 11, the indicating apparatus can be simply assembled and the indicating panel can be easily mounted and removed for change of the indication content or for maintenance and inspection of the panel.

In the above-mentioned embodiment, the illuminating lamp 10B is disposed in the upper holder 10, and the indicating panel 12 has a slant upper end surface 12S opposed to the illuminating lamp 10B for introducing therealong light from the illuminating lamp 10B in order to illuminate the indicating panel 12. In addition, the light from the illuminating lamp 10B is adapted to penetrate the balustrade panel 6 for illuminating the indicating portion 10d of the indicating body 10D. In consequence, the present invention can be applied to an escalator in which it is impossible to mount an illuminating lamp on the frame F which guides the moving handrail 3.

Further, the illuminating lamp 10B can be easily replaced only by removing and remounting the illumina-

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tion cover 10C, because the illuminating lamp 10B is contained in the upper holder 10.

Another embodiment of the present invention will be described below by referring to FIG. 7. This embodiment is generally similar to that shown in FIG. 2, and the same members as shown in FIG. 2 are indicated with the same numerals and description therefor is omitted. Members different from those shown in FIG. 2 are only an upper holder 15 and a lower holder 16. The upper holder 15 has only a function of holding the upper end of the indicating panel 12 on the balustrade panel 6, while the lower holder 16 is secured to the outer deck cover 8 and has a hollow square cross-section, in which an illuminating lamp 16A is disposed.

In this embodiment, wires to be connected to the illuminating lamp 16A can be led from the lower holder 16 directly to the inside of the outer deck cover 8, and therefore, any support pillar 13 seen in the before-mentioned embodiment can be omitted.

FIG. 8 shows a further embodiment developed from that shown in FIG. 7. An indicating body 15D including an indicating portion 15d is provided on the inner side of the balustrade panel 6 at a position opposite to the upper holder 15, and an illuminating lamp 16A is located at the lower portion of the indicating panel 12. In this case, the upper end of the indicating panel 12 is bent toward the indicating portion 15d so that the light from the illuminating lamp 16A may be passed through the interior of the indicating panel 12 and projected toward the indicating portion 15d. Thus, both of the indicating panel 12 and the indicating portion 15d can be illuminated at the same time by means of only one illuminating lamp 16A.

FIG. 9 shows a still further embodiment, in which the lower holder 17 is disposed inside the outer deck cover 8 and contains an illuminating lamp 17A therein, arrangements other than this being similar to those of FIG. 8. In this arrangement, the appearance of the apparatus is improved due to no existence of the lower holder 17 on the upper surface of the outer deck cover 8. In case the upper holder 15 is not required to have an indicating body 15D as shown in FIG. 8, the upper holder 15 can be decreased in its size to a size indicated in FIG. 9 by a two dot chain line, which is equivalent to that shown in FIG. 7.

In the above description, the present invention is applied to an escalator in which the frame F for guiding the moving handrail 3 is substantially enclosed by the moving handrail and fixed to the upper edge of the balustrade panel 6. However, the present invention can be applied not only to an escalator of this kind, but also to escalators in which, for example, the frame F largely protrudes for the moving handrail 3, and further, an illuminating lamp is mounted at the protruded frame F for illuminating the balustrade panel 6. Further, the present invention can be applied not only to an escalator, but also to an electrically driven pathway, of course.

For indicating information on the indicating panel, there are measures such as writing or printing of indication content 12A directly on the indicating panel 12, or adhering a paper or film printed with the content. Further, according to indication contents, as shown in FIG. 10, unevenness 18A may be formed on a transparent acrylic plate by etching or carving, or a plurality of holes 18H may be drilled and, in addition, filled with paints 18P. When a light L is projected from the above of the indicating panel 18 as shown in FIG. 10, the light

13-9
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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá, D.C.,

Abogado (a)
LAURA MICHELSEN NIÑO

ASUNTO	Radicación	06-16530
	Trámite	011
	Evento	378
	Actuación	430
	Oficio	
	Folios	012

Patente de Invención ☒ Patente de Modelo de Utilidad ☐Vía Nacional ☐

Vía PCT (fase nacional) ☒ Cap. I ☒ Cap. II ☐

No. Sol. Internacional	PCT/KR2003/002671
Fecha de Presentación Internac.	2003-12-05

Como resultado del 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

Descripción: Folios: 33 a 46 como se radicó inicialmente

Reivindicaciones: Folios: 26 a 31 como se radicó inicialmente

Dibujos: Folios: 47 a 48 como se radicó inicialmente

Prioridad: Folio: 1
2003-08-20, KR, No. 20-2003-0026803
2003-08-20, KR, No. 20-2003-0026804

2. Objeto de la invención

La presente solicitud se titula "DISPOSITIVO PROTECTOR PARA PASAMANOS DE ESCALERA MOVIL". Folio No.1

El objeto de la presente solicitud de patente consiste en un dispositivo protector para el pasamanos de una escalera móvil, el cual presta servicios para mantenimiento sanitario del pasamanos, publicidad de productos y ventilación en la entrada de la escalera.

De otra parte, el pliego reclama un dispositivo protector relacionado en las reivindicaciones 1 a 9.

El objeto de la solicitud definido anteriormente se clasificó en la IPC B60B 31/02.

3. De la solicitud de patente

3.1. Descripción (artículo 28 D 486)

El capítulo descriptivo calificado no contiene la información suficiente para que una persona versada en el arte pueda ejecutar (fabricar) la invención, principalmente porque el documento contiene errores de redacción y traducción que inciden negativamente en la claridad del documento, por ejemplo:

"las escaleras móviles se instalan en plantas plurales de edificios de tal manera que las escaleras móviles se conectan entre sí en forma zigzag, diferente a los elevadores que viajan entre una planta en movimiento y una planta deseada..." (Pág. 1, folio 34).

"Cada una del par de bases de cenefa 11 se proporciona sobre la misma con balaustrada lateral 13..." (Pág. 2, folio 35).

"hasta este momento, existen placas quíla triangulares colocadas en intersecciones de escaleras móviles cruzadas ara prevenir que las cabezas de los pasajeros se atrapen en las intersecciones..." (Pág. 3, folio 36).

Etc.

De otro lado, este capítulo falla en describir la forma como se ejecuta la invención, por ejemplo la descripción no define como se acopla el protector 20 a la escalera, es más ni siquiera se describe a profundidad este protector. Tampoco especifica la forma de conexión, ubicación y acople del dispositivo visualizador publicitario.

Un objeto presentado es la unidad de depuración de aire. La inclusión de esta unidad no es clara por cuanto no se especifica como se acopla esta unidad al resto de componentes del protector. Así mismo, no es claro cual es el objeto de la mencionada unidad, ya que según los dibujos (esto no está descrito) la toma de aire se realiza a un costado de la escalera y el aire purificado sale al mismo costado, entonces no se entiende porque dice la descripción menciona que el aire filtrado y esterilizado se descarga fuera del dispositivo protector, y por que la zona de entrada del dispositivo protector se mantiene limpia. La descripción debe dejar muy clara tanto la estructura de la unidad de depuración como la función de la misma.

La oficina deja en claro que, el solicitante está obligado a divulgar la invención pues de lo contrario la patente podrá ser denegada. Dicha obligación se considerará cumplida, cuando la descripción contenga todas las indicaciones, que necesita la persona de nivel técnico medio, para ejecutar la invención, en especial, aquellas indicaciones que no estén comprendidas en el estado de la técnica.

Por los motivos anteriores, la descripción calificada no cumple con lo establecido en el Art. 28 de la Decisión.

3.2. Reivindicaciones (artículo 30 D 486)

Lo presentado como capítulo reivindicatorio no define la materia que se desea proteger porque no se establece claramente la relación entre los diferentes componentes del dispositivo protector, específicamente la estructura y relaciones funcionales que existen entre la unidad de esterilización, el dispositivo de publicidad y la unidad de depuración de aire.

La reivindicación 1 no establece cual es la materia **característica** del dispositivo reclamado, ni siquiera define con claridad cual es el objeto reclamado ya que simplemente se refiere a un dispositivo protector pero no indica que se protege ni como se protege. En lugar de lo anterior, la reivindicación se limita a un canal que posee el dispositivo protector, olvidando otros componentes tal como la unidad de esterilización lo cual debe especificarse en la reivindicación independiente.

Cabe resaltar que las reivindicaciones son la parte fundamental de la solicitud, ya que estas definen el alcance de la protección jurídica. Por tal motivo es importante que las reivindicaciones y especialmente la reivindicación 1, contenga todas las características esenciales que diferencian la invención del estado del arte.

Las reivindicaciones 2 a 4 se refieren a la unidad de esterilización. Como se dijo arriba, las características de esta unidad deben estar especificadas en la reivindicación independiente y no en reivindicaciones dependientes, ya que estas se utilizan para aclarar o delimitar la materia contenida en la reivindicación independiente.

Adicionalmente, estas reivindicaciones no tienen sustento descriptivo, ya que la simple mención en la reivindicación, no es fundamento para la reclamación de este elemento. Las reivindicaciones deben establecer la forma como se relaciona cada componente con los demás, de manera que sea clara la estructura conformada y que pretende el privilegio de patente.

Las reivindicaciones 5 a 7 presentan los mismos problemas mencionados para las reivindicaciones anteriores. También hay que agregar que la reivindicación 6 se refiere a un procedimiento de selección lo cual no corresponde a una invención de producto tal como la que se pretende proteger.

La reivindicación 8 no define de manera técnica a la unidad de depuración de aire, ya que se enfoca en el resultado a alcanzar más no en la forma estructural de la unidad.

Por los motivos anteriores, el pliego reivindicatorio calificado NO cumple con los requisitos de claridad exigidos en el Art. 30 de la decisión.

4. Determinación del Estado de la Técnica

Considerando que la solicitud reclama prioridad del 20 de agosto del 2003, se buscaron documentos del estado de la técnica relacionados, con fecha de publicación anterior a esta. Se realizó búsqueda de documentos relevantes dentro del estado de la técnica, entendiendo como estado de la técnica la definición provista en el Art. 16 D 486, y las excepciones fijadas en el Art. 17 de la misma.

No obstante, la solicitud presenta problemas de claridad, se realizó una búsqueda parcial la cual se complementara una vez se realicen los ajustes a la solicitud.

Se encontró como anterioridades los documentos relacionados a continuación que pueden afectar la patentabilidad del objeto de la presente solicitud

N°	Documento*	Título	Fecha de publicación
D1	US4934512	CLEANING DEVICE FOR ARMREST BELT CONVEYOR OF THE ELECTRIC ESCALATOR	1990-06-19

D2	US5040659	INDICATING APPARATUS FOR PASSENGER CONVEYOR, INDICATING BODY USED THEREFOR AND METHOD OF ASSEMBLING THE APPARATUS	1991-08-20
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*los documentos mencionados se anexan al expediente

5. Análisis de patentabilidad (artículo 14 D486)

En cumplimiento del Art. 14 D486 se procedió a evaluar los requisitos de novedad, nivel inventivo y aplicabilidad industrial, con el fin de establecer la patentabilidad de la invención reivindicada de la solicitud en estudio.

5.1. Nivel Inventivo (artículo 18 D486)

La presente solicitud de patente se refiere al problema que se presenta en el mantenimiento de los pasamanos de escaleras móviles dado que la frecuente limpieza manual requiere costos muy altos además de que este trabajo no esteriliza ni desinfecta completamente los pasamanos. Igualmente, la solicitud menciona el deseo de maximizar la efectividad publicitaria en para productos publicitados en escaleras móviles.

Para resolver estos problemas, la presente solicitud de patente presenta un dispositivo protector para pasamanos de escaleras móviles relacionado en las reivindicaciones 1 a 9. Este protector comprende un canal guía formado en su parte inferior, una unidad de esterilización para esterilizar el pasamanos y adicionalmente comprende un dispositivo visualizador publicitario proporcionado a un lado del protector.

La anterioridad D1 se refiere a un dispositivo de limpieza para la esterilización y limpieza del pasamanos de una escalera eléctrica. El documento se refiere a un dispositivo protector 1 que comprende dos paredes arqueadas que forma un canal guía 5 sobre el que pasa la correa del pasamanos 7. Para realizar la esterilización, el documento presenta una unidad de esterilización 2 proporcionada en el dispositivo protector 1 y conformada por un material absorbente 9, una cubierta 10.

De otro lado, la anterioridad D2 la cual se refiere a un aparato indicador para pasajeros de un transportador tal como una escalera eléctrica, presenta también un dispositivo protector que comprende un aparato indicador 9 que incluye un soporte superior 10, un soporte inferior 11 y un panel indicador 12.

El problema planteado en la solicitud en cuanto a la esterilización y desinfección del pasamanos, esta resuelto totalmente por el contenedor 1 de la anterioridad D1, la inclusión de un dispositivo visualizador publicitario puede derivarse de manera obvia de la materia que enseña el documento D2. De manera que al hacer la combinación del dispositivo protector 1 de la anterioridad D1 con el aparato indicador 9 de la anterioridad D2, un técnico versado en el área podría resolver de manera obvia el problema presentado en la solicitud.

En vista de lo anterior, la materia reclamada puede derivarse de manera obvia del estado del arte, por consiguiente se considera que el objeto de la solicitud no tiene nivel inventivo y no cumple con los requisitos del artículo 18 de la Decisión.

6. Conclusión:

Los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

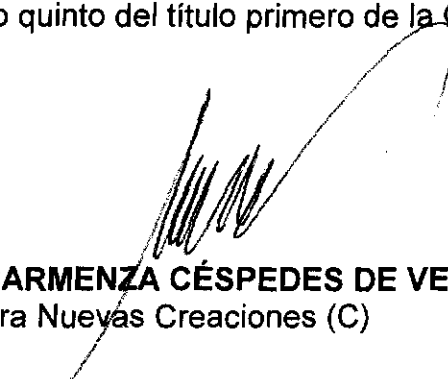
N°	Documento N°	Reivindicaciones Afectadas	Requisito que Afecta
D1	US4934512	1 a 9	Nivel Inventivo
D2	US5040659	1 a 9	Nivel Inventivo

Si el interesado desea continuar la tramitación, deberá presentar un pliego reivindicatorio que defina claramente la materia, que se desea proteger, acorde a lo explicado anteriormente.

Se recomienda, que tenga en cuenta que el replanteamiento de esos apartes NO podrá implicar una ampliación de la protección que correspondería a la divulgación contenida en la solicitud inicial, de acuerdo a lo que establece el artículo 34 de la Decisión 486.

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 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.


ALIX CARMENZA CÉSPEDES DE VERGEL
Directora Nuevas Creaciones (C)

El anterior requerimiento fue notificado por fijación en lista, de fecha
04 JUN. 2010

CONCEPTO TECNICO No. 1926	EXAMINADOR TÉCNICO Código No. 202082
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