P/00/001
Section 29

COMMONWEALTH OF AUSTRALIA

The Patents Act 1990

PATENT REQUEST: CONVENTION PATENT

We, being the person identified below as the Applicant, request the grant of a patent to the person identified below as the Nominated Person, for an invention described in the accompanying standard complete specification

Full application details follow:-

662498

Applicant:	ADTIME WORLDWIDE, B.V.
Address:	Museumplein 11, NL-Amsterdam, The Netherlands
Nominated Person:	ADTIME WORLDWIDE, B.V.
Address:	Museumplein 11, NL-Amsterdam, The Netherlands
Invention Title:	PANEL FOR DISPLAYING INFORMATION SUCH AS ADVERTISING MESSAGES
Name(s) of actual Inventor(s):	Jose Lopez Perez
Address for service in Australia:	CALLINAN LAWRIE, 278 High Street, Kew 3101, Victoria, Australia
Attorney Code:	CL

Convention Details

Application Number	Country	Country Code	Date of Application
P9101311	Spain	ES	30 May 1991

Drawing number recommended to accompany the abstract Fig. 2.

D A T E D this 21st day of January, 1993.

ADTIME WORLDWIDE, B.V.
By their Patent Attorneys:
CALLINAN LAWRIE

M 042650 210193

AUSTRALIA

Patents Act 1990

P/00/008a 12/11/91
Section 29 (1)
Regulation 3.1 (2)

NOTICE OF ENTITLEMENT

We, ADTIME WORLDWIDE, B.V., of Museumplein 11, NL-Amsterdam, The Netherlands, being the applicant in respect of Application No. 89190/91, state the following:-

The person nominated for the grant of the patent has entitlement from the actual inventor by his employment with the applicant.

The person nominated for the grant of the patent is the first applicant of the application listed in the declaration under Article 8 of the PCT.

The basic application listed in the declaration made under Article 8 of the PCT is the first application made in a Convention country in respect of the invention.

D A T E D this 11th day of May, 1994.

Colin D. Macauley
Patent Attorney for the Applicant

AUSTRALIAN PATENT OFFICE

AU9189190

(12) PATENT ABRIDGMENT (11) Document No. AU-B-89190/91
(19) AUSTRALIAN PATENT OFFICE (10) Acceptance No. 662498

(54) Title
DISPLAY PANEL WITH ADVERTISING BAND ON TWO REELS

International Patent Classification(s)
(51)[5] **G09F 011/18**

(21) Application No. : **89190/91** (22) Application Date : **08.11.91**

(87) PCT Publication Number : **WO92/22052**

(30) Priority Data

(31) Number	(32) Date	(33) Country
9101311	**30.05.91**	**ES SPAIN**

(43) Publication Date : **08.01.93**

(44) Publication Date of Accepted Application : **07.09.95**

(71) Applicant(s)
ADTIME WORLDWIDE, B.V.

(72) Inventor(s)
JOSE LOPEZ PEREZ

(74) Attorney or Agent
CALLINAN LAWRIE , Private Bag 7, KEW VIC 3101

(56) Prior Art Documents
AU 9585/22 G09F 11/15 54.16
US 5003717

(57) Claim

1. A panel for the display of information such as advertising messages, said panel including a base provided with wheels for displacement on rails, on which are to be longitudinally coupled a plurality of modules or panels to make up either a single message or several laterally adjacent messages, a frame being established on the said base, said frame consists of a pair of side plates joined to each other by means of a plurality of front mountings and by a rear upper frame portion, in which frame there are established two idler rollers coupled free to turn on the upper and lower ends of the front edge of side plates, and two driving rollers coupled to the said side plates and acted on by respective electric engines, on which said driving rollers are wound or unwound the ends of a laminar body which carries different messages, each of which can be seen individually through the portion thereof established between the idler rollers.

OPI DATE 08/01/93 APPLN. ID 89190/91
AOJP DATE 25/02/93 PCT NUMBER PCT/ES91/00073

AU9189190

ION

(51) Clasificación Internacional de Patentes[5] : G09F 11/18

A1

(11) Número de publicación internacional: WO 92/22052

(43) Fecha de publicación internacional: 10 de diciembre de 1992 (10.12.92)

(21) Solicitud internacional: PCT/ES91/00073

(22) Fecha de presentación internacional: 8 de noviembre de 1991 (08.11.91)

(30) Datos relativos a la prioridad:
P 9101311 30 de mayo de 1991 (30.05.91) ES

(71) Solicitante *(para todos los Estados designados salvo US)*: ADTIME WORLDWIDE, B.V. [NL/NL]; Museumplein 11, NL-Amsterdam (NL).

(72) Inventor; e

(75) Inventor/solicitante *(sólo US)* : LOPEZ PEREZ, José [ES/ES]; Raimundo Fernandez Villaverde, 65, Planta 9 - Edifico Windsor, E-28003 Madrid (ES).

(74) Mandatario: HERRERO ANTOLIN, Julio; Herrero & Asociados, S.L., Alcalá, 21, E-28014 Madrid (ES).

(81) Estados designados: AT, AT (Patente europea), AU, BB, BE (Patente europea), BF (Patente OAPI), BG, BJ (Patente OAPI), BR, CA, CF (Patente OAPI), CG (Patente OAPI), CH, CH (Patente europea), CI (Patente OAPI), CM (Patente OAPI), DE, DE (Patente europea), DK, DK (Patente europea), ES (Patente europea), FI, FR (Patente europea), GA (Patente OAPI), GB, GB (Patente europea), GN (Patente OAPI), GR (Patente europea), HU, IT (Patente europea), JP, KP, KR, LK, LU, LU (Patente europea), MC, MG, ML (Patente OAPI), MR (Patente OAPI), MW, NL, NL (Patente europea), NO, PL, RO, SD, SE, SE (Patente europea), SN (Patente OAPI), SU, TD (Patente OAPI), TG (Patente OAPI), US.

Publicada
Con informe de búsqueda internacional.

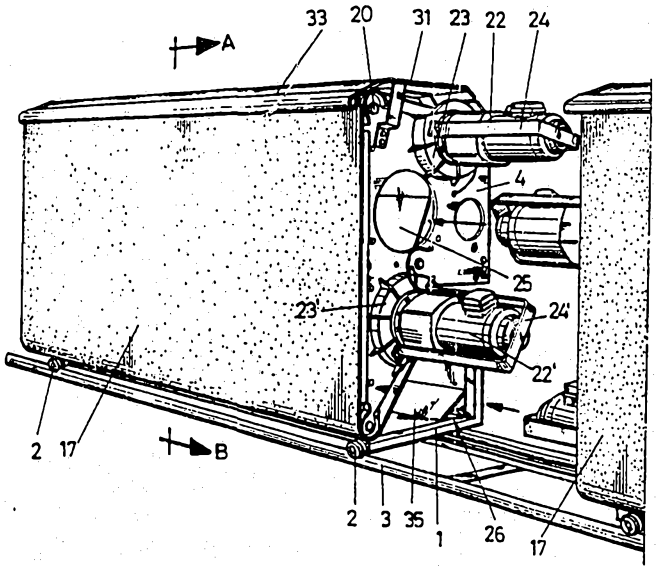
662498

(54) Title: PANEL FOR DISPLAYING INFORMATION SUCH AS ADVERTISING MESSAGES

(54) Título: PANEL DE EXHIBICION DE INFORMACIONES TALES COMO MENSAJES PUBLICITARIOS

(57) Abstract

The structure of the display panel is comprised of a frame (1) provided with wheels (2) rolling on rails (3) and wherein is mounted, with the possibility of regulating the inclination, a structure comprised of two side plates (4) and wherein are set two guiding rollers (18) for a laminar body (17) carrying different information, and two rollers (21) for rolling/unrolling said laminar body (17), said rollers being actuated by respective electric motors (22-22') which, appropriately controlled by a computer program, allow to change the information provided by the panel after appropriately predetermined display periods of time.



(57) Resumen

Está estructurado a base de un armazón (1) con ruedas (2) de deslizamiento sobre railes (3), en el que se monta, con posibilidad de regulación posicional en cuanto a inclinación se refiere, un armazón en el que participan dos placas laterales (4) en las que se establecen dos rodillos guia (18) para un cuerpo laminar (17) portador de diferentes informaciones, y dos rodillos (21) para arrollamiento/desenrollamiento de dicho cuerpo laminar (17), accionados por respectivos motores eléctricos (22-22'), los cuales, debidamente gobernados a través de un programa de ordenador, permiten el cambio de la información suministrada por el panel tras periodos de exhibición convenientemente preestablecidos.

OBJECT OF THE INVENTION

The present invention relates to a panel designed specifically for displaying information, such as for example advertising messages, with the characteristic that such messages may be changed, by means of a suitable electronic program, such that during a certain length of time, such as a sports match, the advertisements appearing on a certain panel may change one or several times, whereby several advertisers are able to use the same panel.

As is obvious, the panel being described may also be used for displaying any other information requiring similar characteristics.

BACKGROUND OF THE INVENTION

The prior art is disclosed in US Patent No. 5,003,717. Another known display system for information such as advertising messages is specially designed to be used in sporting events, such as for example in football fields, basketball pitches and the like, which events are broadcast on at least one television channel and where a number of panels are used as display elements, conveniently located in order to be picked up by the cameras.

More specifically, each camera has an element which is activated by a visual indicator established on each of the display panels, such that using appropriate means the time for which each image remains on the panel can be controlled, thereby allowing advertising costs to be dependant on the time for which the advertisements remain on the screen or allowing such periods to be established previously, such that when a certain advertisement or message has appeared on the screen for the agreed length of time, the message on the said display panel or group of display panels changes.

DESCRIPTION OF THE INVENTION

The display panel for information such as advertising messages proposed by the invention is particularly useful for putting into practice the display system referred to in the previous paragraph, although the said panel may obviously also be used in display systems wherein the length of time for which the messages appear on the panels is contracted on the basis of real time of display on the panels rather than on the basis of the time for which they appear on the television screens connected to the channel or channels broadcasting the event.

In a more general sense, the panels being described may be used in any practical circumstance in which it is desired to display messages which change in time.

The invention provides a panel for the display of information such as advertising messages, said panel including a base provided with wheels for displacement on rails, on which are to be longitudinally coupled a plurality of ~~modules or~~ respective panels to make up either a single message or several laterally adjacent messages, a frame being established on the said base, said frame consists of a pair of side plates joined to each other by means of a plurality of front mountings and by a rear upper frame portion, in which frame there are established two idler rollers coupled free to turn on the upper and lower ends of the front edge of side plates, and two driving rollers coupled to the said side plates and acted on by respective electric engines, on which said driving rollers are wound or unwound the ends of a laminar body which carries different messages, each of which can be seen individually through the portion thereof established between the idler rollers. The invention is essentially composed of a base provided with wheels for displacement of the panel as a whole along rails

which allow perfect longitudinal interconnection between modules, such that various adjacent modules may together make up a single message or advertisement, on which base is mounted a frame comprised by two parallel side plates, being joined to each other at the front by means of a plurality of front mountings placed on the same plane, whereas at the rear the said plates are joined by means of a rear upper frame portion wherein may be established a platform for holding the components of the electronic circuit of the panel, and to which are joined doors for accessing such components.

Four rollers are established within the mentioned frame, specifically between the two end plates, two of which rollers are free to rotate whilst the other two are driven by engines, the two freely-rotating idler rollers occupying the imaginary upper and lower front corners of the panel, between which will be established the operative sector of the laminar body which actually carries the message, whereas the engine-driven rollers, which obviously rotate in opposite directions, are designed for winding and unwinding the said laminar body.

In a particular embodiment, the engines for driving the winding rollers are coupled coaxially thereto, and must in consequence be located outside the module, for which purpose it is foreseen, as a further characteristic of said embodiment, that the said rollers are out of alignment both laterally and transversally, such that, by means of inverse arrangement of the side plates in adjacent modules, the engines of one module will be housed in the empty spaces of the adjacent module, obviously crossing the corresponding side plate, and vice versa.

Nevertheless, and in accordance with a different embodiment of the invention, the possibility that the corresponding driving engines may be housed within each module has been foreseen, in which case the said engines are

coupled to the winding rollers through transmission pulleys and belts rather than axially.

In another embodiment of the invention, the frame is adjustably mounted on the base and is provided with blocking means in a plurality of positions, such that the front surface of the said frame, on which is established the operative sector of the continuous laminar body

which carries the messages, may adopt a vertical or slanting position, with a varying angle of inclination.

As is likewise obvious, the structure described may be complemented with an electronic circuit controlled by a microprocessor, which establishes the times at which the information appearing on the panel should change, and which activates the engines in one or the other direction for the amount of time necessary to the change the information to one of the many which may be stored in a single panel, although the said microprocessor may obviously be substituted by a manual or remote control or any other means to act either directly or remotely on the module.

DESCRIPTION OF THE DRAWINGS

In order to complete the description being made and to assist the better understanding of the characteristics of the invention, a set of drawings is attached to the present specification as an integral part thereof, where the following has been shown in an illustrative and non limiting manner:

Figure 1.- Shows a general perspective and exploded view of an information display panel made in accordance with the object of the present invention, wherefrom certain details have been shown at a larger scale for a clearer understanding thereof.

Figure 2.- Shows a perspective front view of the panel of the preceding figure, duly arranged and established on the corresponding rails, a second panel being partially represented to show longitudinal coupling thereto.

Figure 3.- Shows a perspective rear view of the panel, with the cover in its open position to show essentially the mechanisms of the electric circuit.

Figure 4.- Shows a cross section of the panel.

Figure 5.- Shows a perspective front and side view of a varying embodiment of the panel wherein the roller driving engines are housed within the panel itself.

Figure 6.- Shows a further perspective view of the panel, being a counterpart to the preceding figure.

PREFERRED EMBODIMENT OF THE INVENTION

In the light of these figures it can be observed how the information display panel being described is formed by a base (1), provided with perimetrally grooved wheels (2) for displacement on rails (3), on which are established a plurality of panels in longitudinal alignment and duly coupled to one another, the said base (1) comprising the supporting structure for a frame consisting of a pair of side plates (4), stiffened by means of a plurality of mountings (5) which are coupled at the ends, in a coplanar arrangement with respect to the front edge of plates (4), specifically by means of screws which pass through holes (6) operatively provided on the said plates, the said frame being complemented by a rear upper frame (7) likewise established between the plates (4) and including a platform (8) wherein are located the electrical and electronic components of the panel which will be referred to hereinafter.

The said frame is adjustably mounted on base (1), for which purpose it includes, a toothed (10) sector (9) coupled to one of its ends and wherein selectively plays a lock (11) mounted in box (12) which is in turn coupled to one of the ends of the frame (7), which, together with the rest of the body, is adjustably mounted on base (1), specifically by means of bearings (13).

A rectangular plate (14) is fastened to mountings (5), immediately in front of which there is established a padded body (15), of the same rectangular shape, and in front again a plastic sheet (16), likewise having the same rectangular shape and constituting what will be the operative surface of the panel, over which slides a laminar body (17) which carries the information and is suitably guided by a pair of rollers (18-18'), coupled free to turn on the ends of the front edge of plates (4), specifically in apertures (19) and with the aid of shaft screws (20), the ends of which laminar body (17) are wound on respective rollers (21-21') fastened to one of the end plates (4) of the frame, projecting outside the panel, as shown specifically in figure 2, the two engines (22-22') being duly synchronized such that when the laminar body (17) is unwound at one of the rollers (21) it will be wound in the same amount at the other, and vice versa.

Each end plate (4) of the frame includes a pair of pressings (23-23') for engaging the engines (22-22') with the aid of respective supports (24-24'), in addition to which the said pressings (23-23') are out of alignment both vertically and transversally, the plates further including a large aperture (25) and a channelling (26) which are likewise out of alignment with respect to the previously mentioned pressings (23), such that by arranging the plates (4) of one module inverted with respect to the adjacent one, and as is likewise observed in figure 2, the engines (24) of one module or panel are out of alignment with respect to those of the other and penetrate and are housed in the empty spaces left by the rollers (21) in the other, through the said apertures (25) and channelling (26).

The mentioned engines (22) with their corresponding wiring (27) are jointly controlled for each and every one of the modules from a main control box not shown in the drawing, through various auxiliary boxes, by means of a computer program

established in the corresponding microprocessor, which sends the corresponding signals to an electronic box or panel (28) provided on platfrom (8), with which works a feeding transformer (29), stabilisers or any other suitable element to ensure optimum feeding conditions, and the corresponding terminals (30) for connection of the engines.

The structure described is completed with a cover wherein is defined a fixed sector (31) and two adjustable sectors, a rear sector (32) allowing access to platform (8) where the electric and electronic components are located, and a front sector (33) which partially overlaps the marginal upper area of the operative sector of the laminar body (17) carrying the information and below which may be extracted a waterproof sheet for protection of the said laminar body when same is not in use. Obviously the module is likewise closed at the rear below the adjustable cover (32), specifically through frame parts (34) and (35) which can be clearly seen in figure 1.

In accordance with the foregoing structure, as already described and each time it is necessary to change the message or information displayed on the panel, appropriate control signals will reach the electronic control box (28) to act on engines (22-22'), thereby partially unwinding the laminar body (17) of one of the rollers (21) and simultaneously winding it up again at the other roller, in an amount sufficient for a new section of the laminar body, corresponding to the new information, to appear on the front surface of the panel. It only remains to be pointed out that, in order to suitably control displacement of laminar body (17), between respective operative sectors corresponding to different information or messages, there are provided signals, apertures, pressings or any other means susceptible of being detected by sensors, such as for example a photoelectric cell, whereby total control over the magnitude of

displacement is achieved, as well as perfect synchronism between panels.

Although the present description has been made on the basis of the embodiment shown in figures 2 and 3, where the engines (22-22') project outside one of the end plates (4) of the module or panel, it has likewise been foreseen that the said engines (22-22') can be housed within the panel which they are to move, as in the embodiment shown in figures 5 and 6, in which case the rollers (21-21') are provided at one of their ends with respective pulleys (36-36') through which they receive movement from the said engines (22-22') by means of respective transmission belts (37-37'), which transmission may also be effected by means of pinions and chains.

Furthermore, in this practical embodiment shown in figures 5 and 6 it has likewise been foreseen that the idler rollers (18-18') for the laminar body (17) carrying the information, are considerably out of alignment in order that the operative sector of the said laminar body (17) should be significantly and permanently tilted upwards and back, without it being necessary for the display module or panel as a whole to be capable of being tilted backwards, as is the case in figures 1 to 4, but obviously such details are not significant nor do they in any way affect the essentiality of the invention.

It has likewise been foreseen, in this embodiment, that the upper (31) and rear (32) covers are made as a significantly inclined single cover (38), the module adopting a trapezial, almost triangular, profile as observed especially in figure 6, for which, and as likewise observed in the said figure, it is necessary that the winding roller (21), located on an upper level, should adopt a considerably lower position than in the previous case, and be furthermore displaced towards the front wall of the module.

It should likewise be pointed out that in the structure shown in figures 5 and 6 there exists a set of electric batteries, installed within each module, capable of autonomously producing electric energy. In other words, the provision of such batteries avoids the need for connection to an outside power source.

It is not considered necessary to extend the present description any further for an expert in the art to understand the scope of the invention and the advantages derived therefrom.

The materials, shape, size and arrangement of the elements may vary, provided such variation does not imply a modification in the essentiality of the invention.

~~The terms used in the specification should be taken to have a wide and non-limiting meaning.~~

The claims defining the invention are as follows:

1. A panel for the display of information such as advertising messages, said panel including a base provided with wheels for displacement on rails, on which are to be longitudinally coupled a plurality of ~~modules or~~ respective panels to make up either a single message or several laterally adjacent messages, a frame being established on the said base, said frame consists of a pair of side plates joined to each other by means of a plurality of front mountings and by a rear upper frame portion, in which frame there are established two idler rollers coupled free to turn on the upper and lower ends of the front edge of side plates, and two driving rollers coupled to the said side plates and acted on by respective electric engines, on which said driving rollers are wound or unwound the ends of a laminar body which carries different messages, each of which can be seen individually through the portion thereof established between the idler rollers.

2. The panel for the display of information such as advertising messages, in accordance with claim 1, wherein a plate is fastened before front mountings of the frame, a padded body being fastened to the said plate, and in front of the padded body a plastic sheet over which slides an operative sector of the laminar body which carries the information.

3. The panel for the display of information such as advertising messages, in accordance with claim 1, wherein the engines for driving rollers are projectingly coupled to one of the plates of the frame, with the aid of supports towards the outside thereof, allowing the rollers and therefore the engines to be out of alignment both vertically and horizontally, and that the plates are provided with an aperture and a large channelling, such that the said plates adopt inverted positions between adjacent modules or panels, whereby the engines of one panel are out of alignment with respect to those of the other and thus the engines of each panel or module are housed within the adjacent panel, occupying the free spaces left therein by its driving rollers.

4. The panel for the display of information such as advertising messages, in accordance with claims 1 or 2, wherein the engines for driving rollers are coupled to one of the plates of the frame, specifically to the inner surface thereof, and are housed within a module, with said engines transmitting the motion to the respective rollers with the aid of pulleys and transmission belts.

5. The panel for the display of information such as advertising messages, in accordance with claim 3, wherein said frame is tiltingly mounted on the base, specifically by means of bearings coupled to the upper edges of the said base, which base is further provided with a toothed sector for engaging the base with the aid of a bolt suitably related thereto and specifically to a box of rear upper frame position, such that in accordance with the position of sector in which bolt is located, the base will take up a certain operative position, from a vertical situation for the operative sector of the laminar body to an upwards and rear inclined position, the angle whereof may be adjusted.

6. The panel for the display of information such as advertising messages, in accordance with claims 1, 2 or 4, wherein the idler rollers for the laminar body which carries the information are considerably separated in a front-to-rear direction, such that the operative sector of the said laminar body which carries the information is included within an imaginary plane significantly inclined upwards and back.

7. The panel for the display of information such as advertising messages, in accordance with any one of claims 1 to 3 or 5, wherein a platform is established on the rear upper frame portion for electric and electronic components of the panel, specifically for a feeding transformer of engines and an electronic box for controlling the said engines.

8. The panel for the display of information such as advertising messages, in accordance with any one of claims 1 to 3, 5 or 7, wherein said base is closed at the sides by the plates and at the rear by a cover, whilst the base is

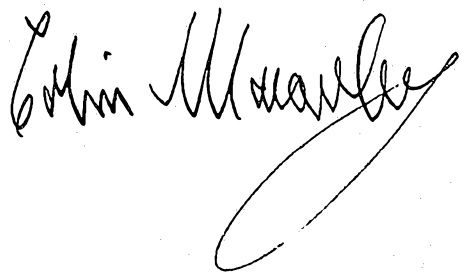
provided with a cover wherein is defined a fixed upper sector, a rear displaceable sector for accessing the platform which carries the electric and electronic mechanisms, and a front sector which houses a waterproof removable sheet for protecting the operative sector of the laminar body which carries the information when the panel is not in use.

9. The panel for the display of information such as advertising messages, in accordance with claims 1, 2, 4 or 6, wherein said base is closed at the sides by plates and at the rear by a cover, whereas the frame is provided with an upper cover for accessing platform which carries the electric and electronic elements, which cover ends in a front overhang which houses a waterproof removable sheet for protecting the operative sector of the laminar body which carries the information when the panel is not in use.

10. A panel for the display of information substantially as hereinbefore described with reference to the accompanying drawings.

DATED this 11th day of May, 1994.

ADTIME WORLDWIDE, B.V.
By their Patent Attorneys:
CALLINAN LAWRIE



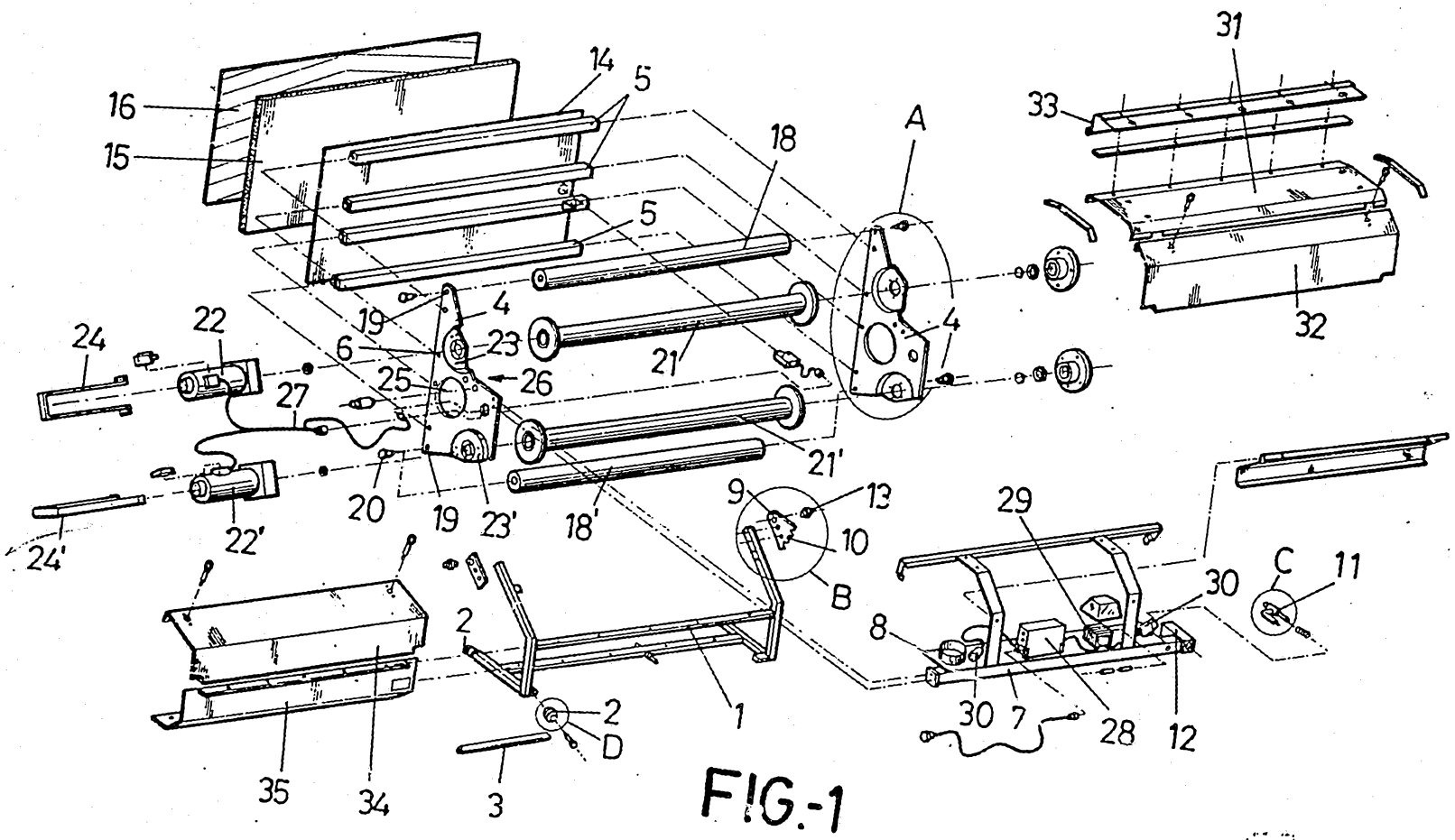

16
15
14
5
5
18
A
31
33
32
4
4
19
6
23
25
26
21
21'
24
22
27
24'
22'
20
19
23'
18'
9
13
10
B
29
30
C
11
8
2
2
D
1
30
7
28
12
35
34
3

FIG.-1

89190/91

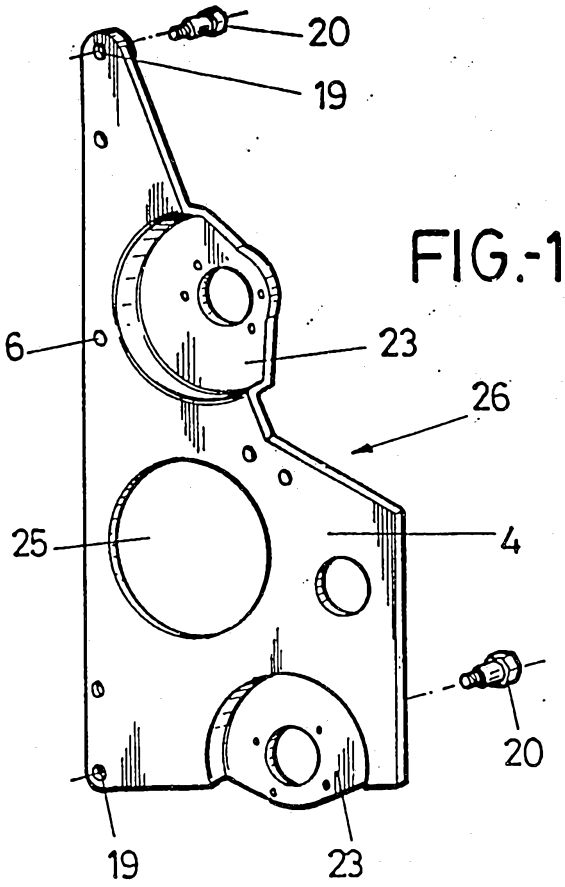


FIG.-1A

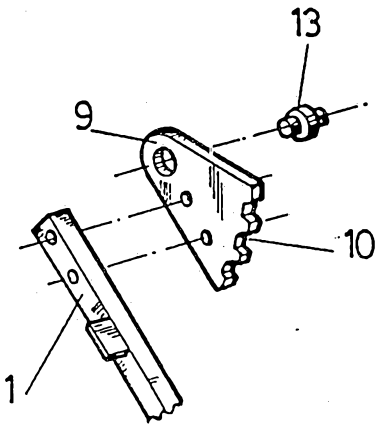


FIG.-1B

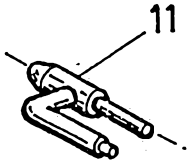


FIG.-1C

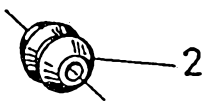


FIG.-1D

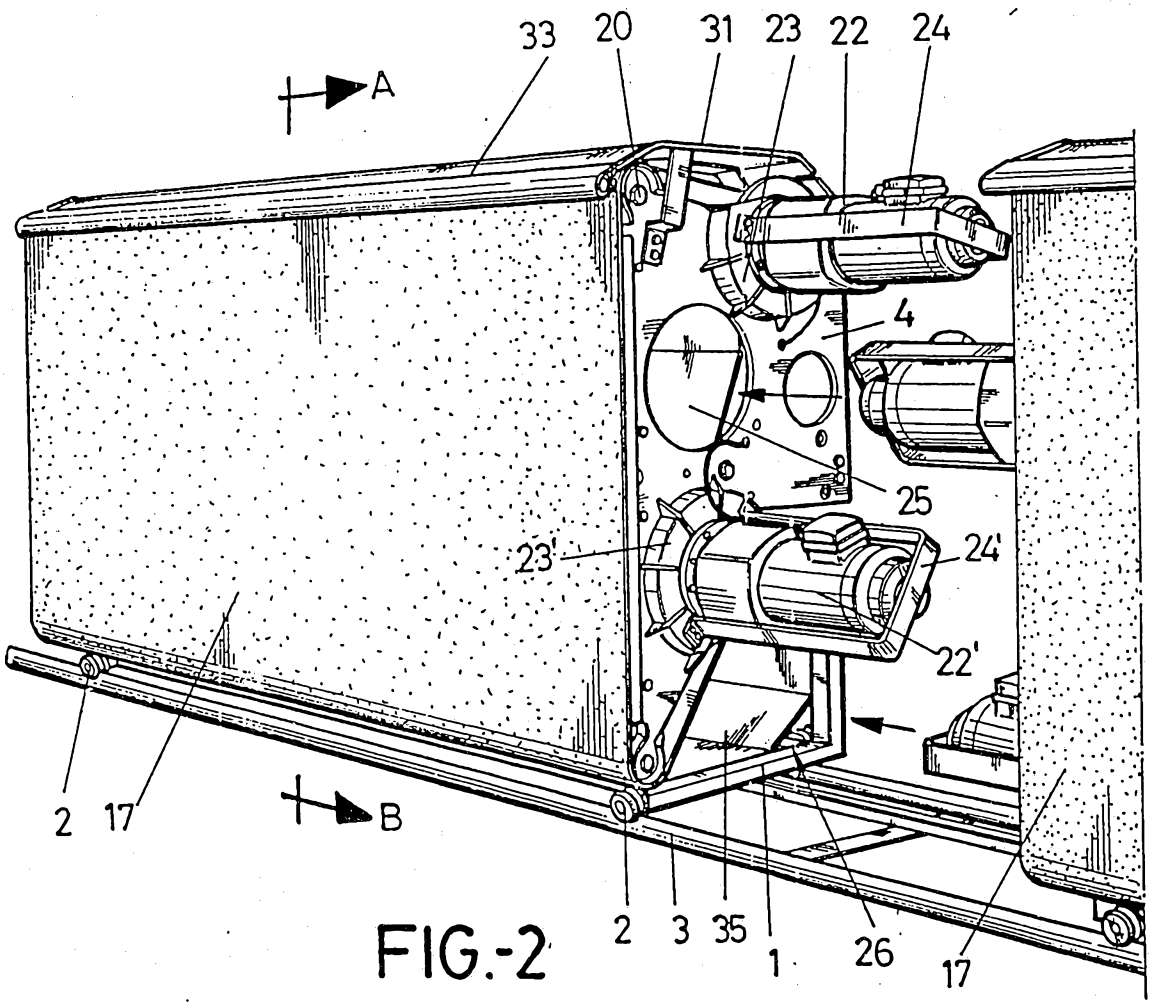


FIG.-2

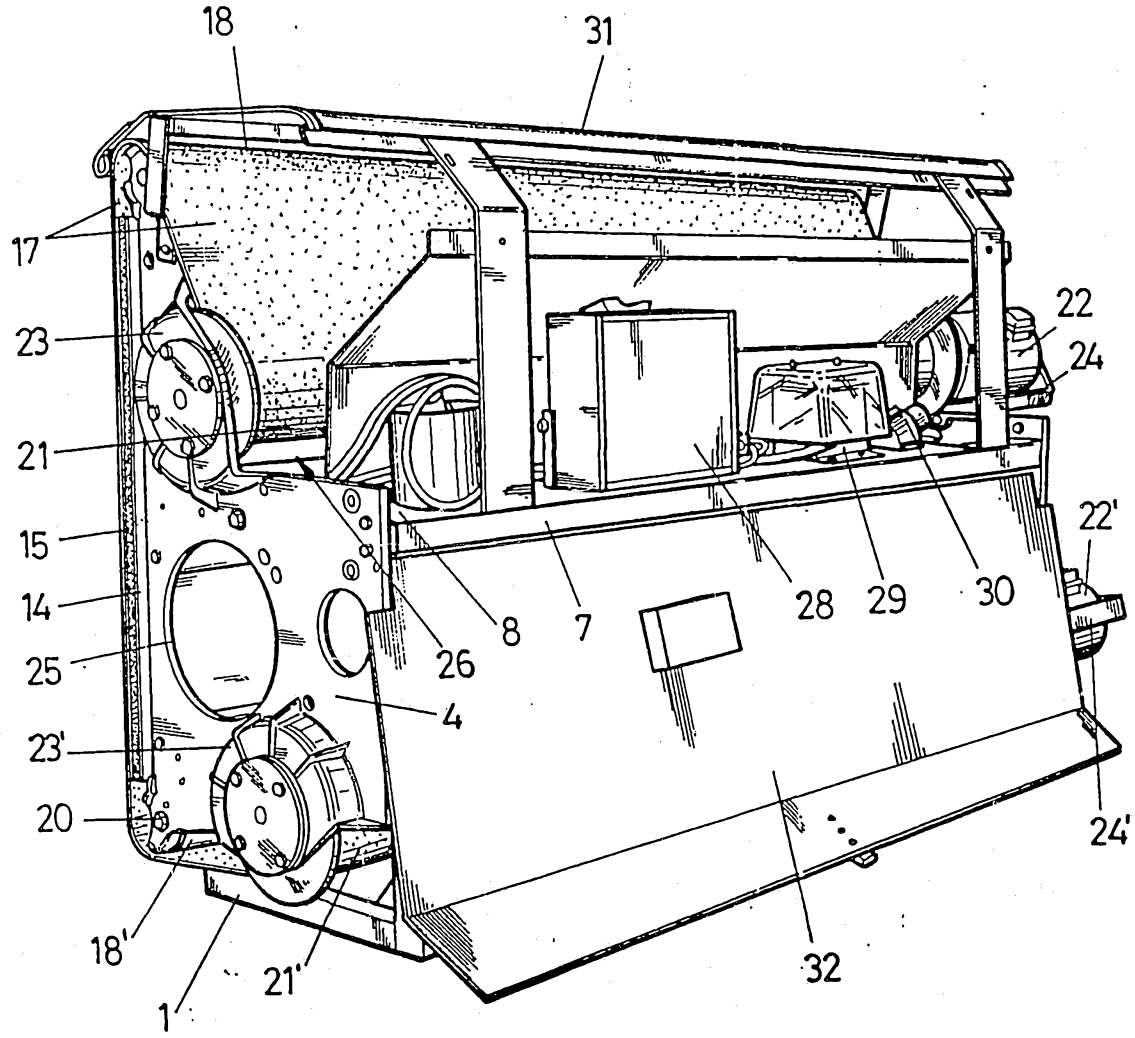
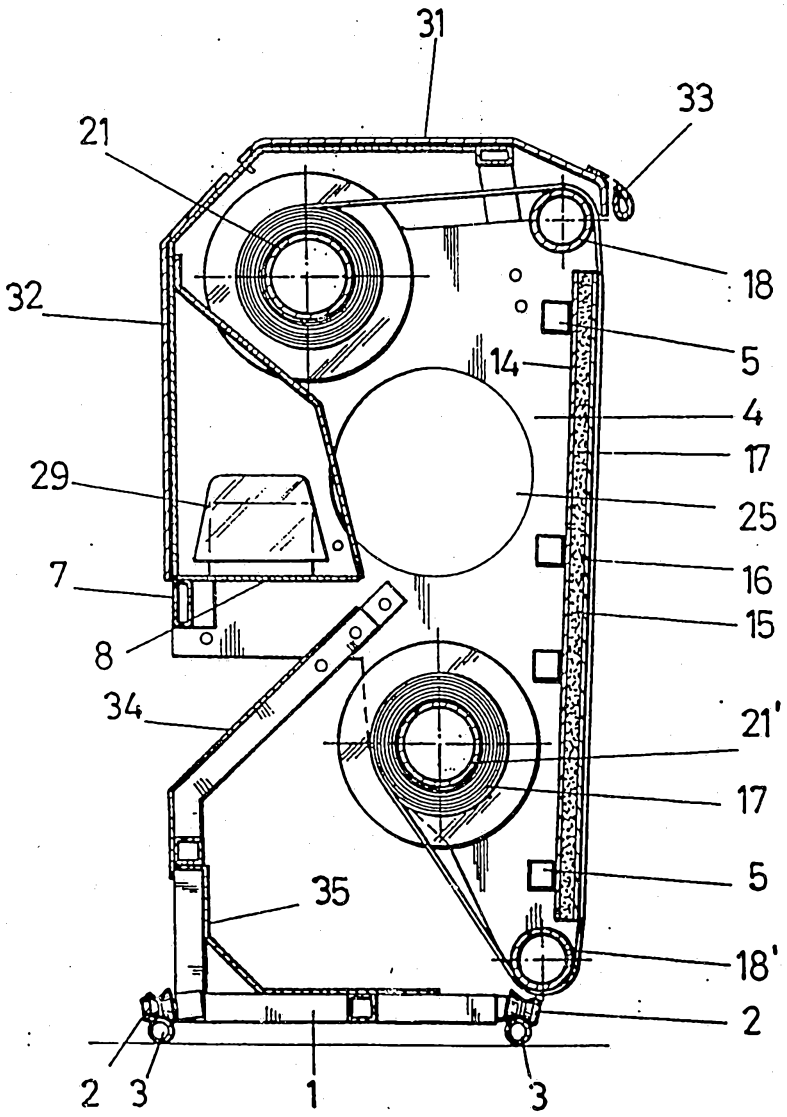


FIG.-3



A-B

FIG.-4

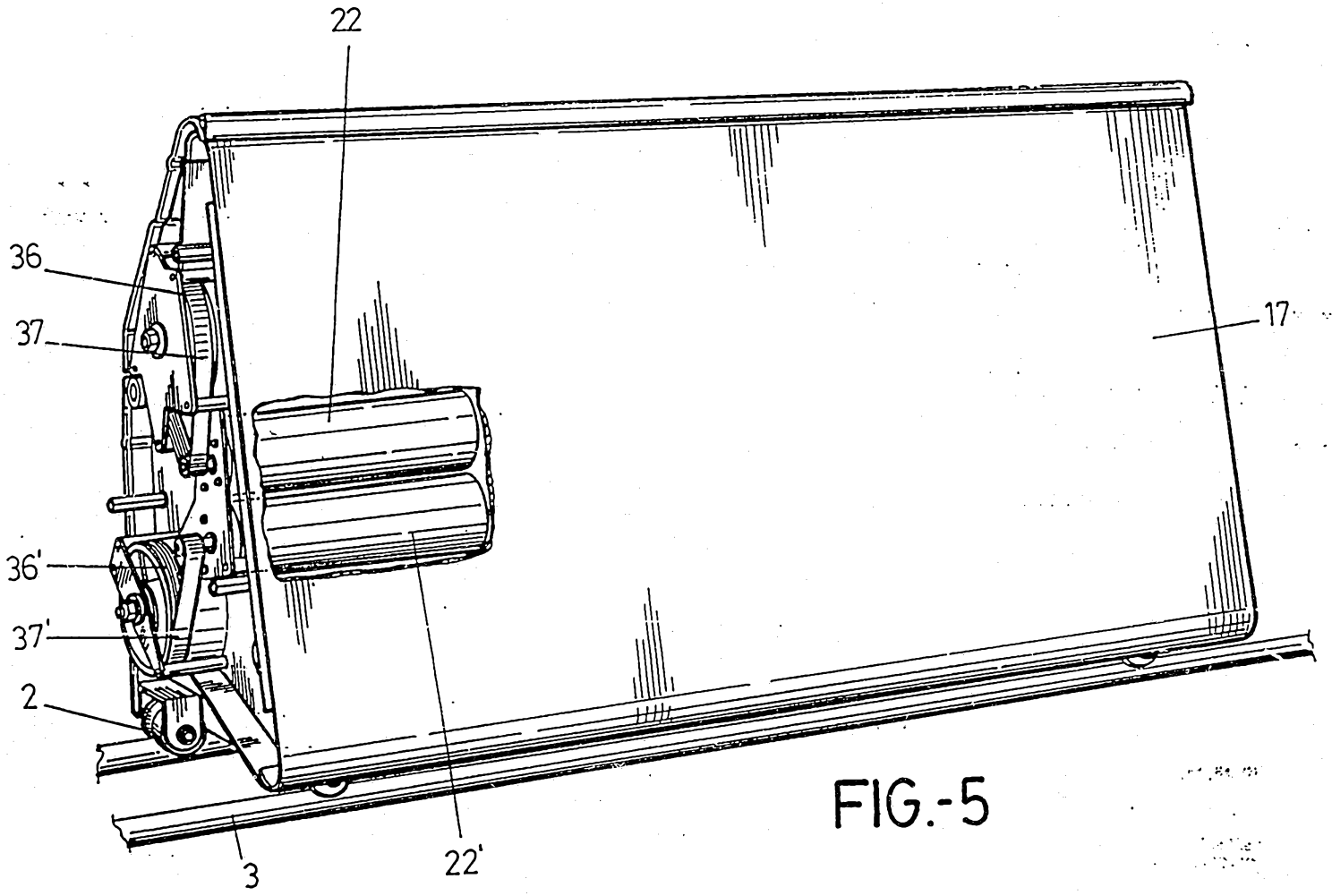


FIG.-5

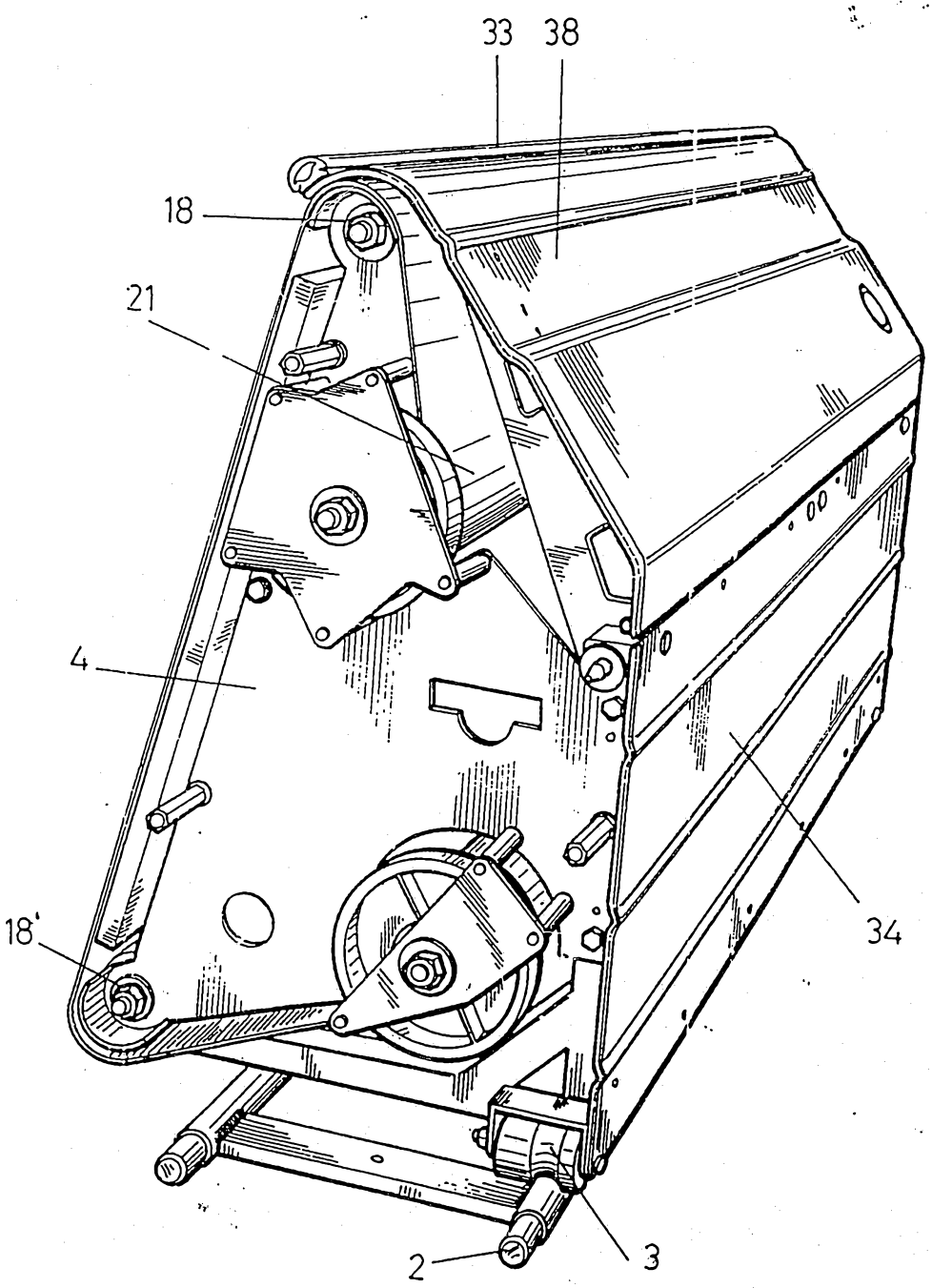


FIG.-6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES 91/00073

A. CLASSIFICATION OF SUBJECT MATTER

IPC5 G09F 11/18

89190/91

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC5 G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US,A,5003717 (C. TRAME et al.) 2 April 1991 see column 1, line 62 - column 2, line 44; figure 1	1

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
7 February 1992 (07.02.92)	17 February 1992 (17.02.92)
Name and mailing address of the ISA/ EUROPEAN PATENT OFFICE Facsimile No.	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 1992)

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO. ES 9100073

SA 53423

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report.
The members are as contained in the European Patent Office EDP file on 12/02/92
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A- 5003717	02-04-91	None	

INFORME DE BUSQUEDA INTERNACIONAL

Solicitud Internacional Nº PCT/ES 91/00073

I. **CLASIFICACION DE LA INVENCION** (caso de ser aplicables varios simbolos de clasificación, indicarlos todos) [6]

Según la clasificación internacional de patentes (CIP) o según la clasificación nacional y la CIP

Int.Cl.[5]: G 09 F 11/18

II. **SECTORES COMPRENDIDOS POR LA BUSQUEDA**

Documentación mínima consultada [7]

Sistema de clasificación	Símbolos de clasificacion
Int.Cl.[5]:	G 09 F

Otra documentación consultada además de la documentación mínima en la medida en que tales documentos forman parte de los sectores comprendidos por la búsqueda [8]

III. **DOCUMENTOS CONSIDERADOS PERTINENTES** [9]

Categoria *	Identificación de los documentos citados, [11] con indicación, en caso necesario, de los pasajes pertinentes [12]	Nº de las reivindicaciones a las que se refieran [13]
A	US, A, 5003717 (C. TRAME et al.) 2 Abril 1991 ver columna 1, línea 62 - columna 2, línea 44; figura 1	1

* Categorías especiales de documentos citados: [10]

"A" documento que define el estado general de la técnica, no considerado como particularmente pertinente

"E" documento anterior, publicado ya sea en la fecha de presentación internacional o con posterioridad a la misma

"L" documento que pueda plantear dudas sobre una reivindicación de prioridad o que se cita para determinar la fecha de publicación de otra cita o por una razón especial (como la indicada)

"O" documento que se refiere a una divulgación oral, a un empleo, a una exposición o a cualquier otro tipo de medio

"P" documento publicado antes de la fecha de presentación internacional, pero con posterioridad a la fecha de prioridad reivindicada

"T" documento ulterior publicado con posterioridad a la fecha de prioridad y que no pertenece al estado de la técnica pertinente pero que se cita para comprender el principio o la teoría que constituye la base de la invención

"X" documento particularmente pertinente: la invención reivindicada no puede considerarse como nueva ni que implique una actividad inventiva

"Y" documento particularmente pertinente: la invención reivindicada no puede considerarse que implique una actividad inventiva cuando el documento se asocia a otro u otros documentos de la misma naturaleza, cuya combinación resulta evidente para un experto en la materia

"&" documento que forma parte de la misma familia de patentes

IV. **CERTIFICACION**

Fecha en la que se ha concluido efectivamente la búsqueda internacional	Fecha de expedición del presente informe de búsqueda internacional
7 Febrero 1992	17. 02. 92
Administración encargada de la búsqueda internacional	**Firma del funcionario autorizado**
OFICINA EUROPEA DE PATENTES	Ulrik CHRISTENSEN

ANEXO AL INFORME DE BUSQUEDA INTERNACIONAL RELATIVO A LA SOLICITUD INTERNACIONAL DE PATENTE Nº

ES 9100073
SA 53423

Este anexo enumera los miembros de familias de patentes relativos a los documentos de patentes citados en el informe de búsqueda internacional mencionado.
Los miembros aparecen tal como están contenidos en el archivo EDP de la Oficina Europea de Patentes al
La Oficina Europea de Patentes está exenta de responsabilidad por estos datos, que se facilitan a fines de información solamente.

Documento de patente citado en el informe de búsqueda	Fecha de publicación	Miembro(s) de familia de patentes	Fecha de publicación
US-A- 5003717	02-04-91	None	

Formulario EPO P0479