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MUÑECA ANIMADA

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MATTEL, INC.

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El Segundo, California, Estados Unidos de América

74. APODERADO

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Código No. 1092

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3 REPRESENTANTE O APODERADO	Nombre: EMILIO FERRERO Dirección: Carrera 4ª. No. 72-35 Teléfono: 347 38 11 Fax:: 217 92 11 E-mail: clientes@camyo.com. Domicilio: Bogotá, Colombia.	IDENTIFICACION C.C. ☒ NIT ☐ C.E. ☐ Otro ☐ Cual _____ Número: 438.019 T.P. 31.929	
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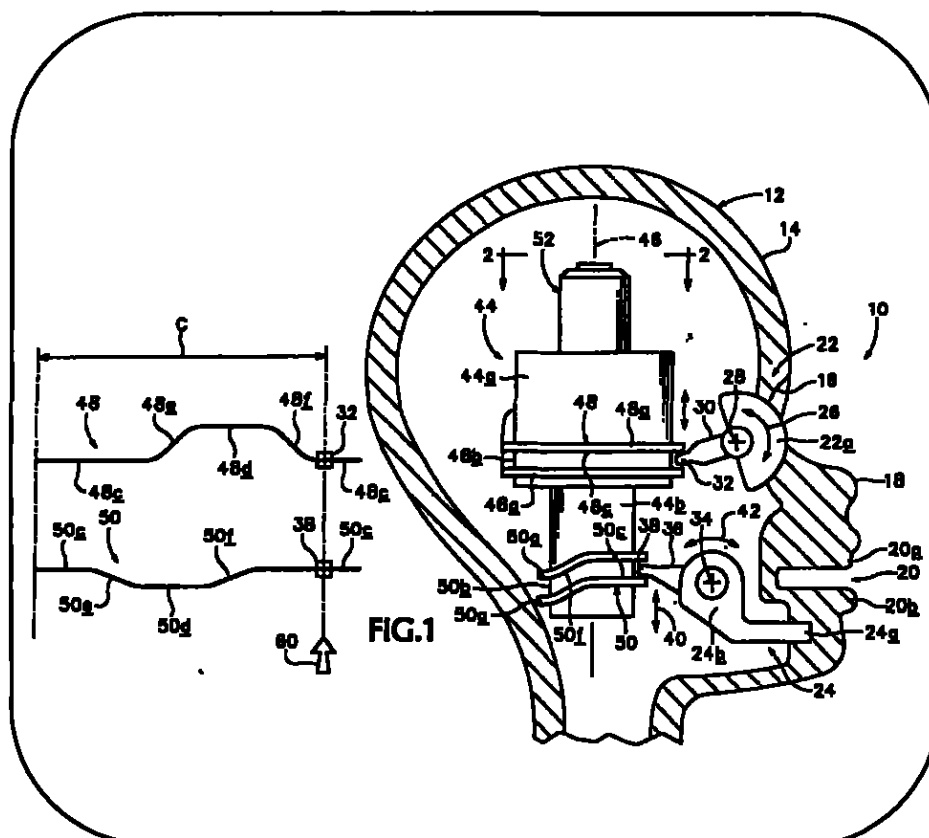
10

Anexos:

- ☒ Comprobante de pago de la tasa de presentación de la solicitud por \$ 400.000.00.
- ☐ Comprobante de pago por reivindicación de prioridad.
- ☒ Documento que acredita la existencia y representación legal cuando el solicitante sea persona jurídica.
- ☒ Poderes, si fuere el caso.
- ☐ Documento de cesión del inventor al solicitante o a su causante.
- ☐ Declaraciones.
- ☒ Copia de la solicitud internacional. (Resumen, descripción, reivindicaciones, dibujos)
- ☐ Traducción de la solicitud internacional al castellano. (Resumen, descripción, reivindicaciones, dibujos)
- ☐ Copia del examen preliminar efectuado por la IPEA.
- ☐ Traducción del examen preliminar efectuado por la IPEA.
- ☐ De ser el caso, copia del contrato de acceso.
- ☐ De ser el caso, documento que acredite la licencia o autorización de uso de conocimientos tradicionales de las comunidades indígenas.
- ☐ De ser el caso, certificado de depósito del material biológico.
- ☒ Arte final 12x12
- ☐ De ser el caso, información sobre otras solicitudes de patente o títulos obtenidos en el extranjero por el mismo titular o su causante, relacionadas parcial o totalmente con la invención de esta solicitud.
- ☐ Otros

11

FIGURA CARACTERISTICA:



12

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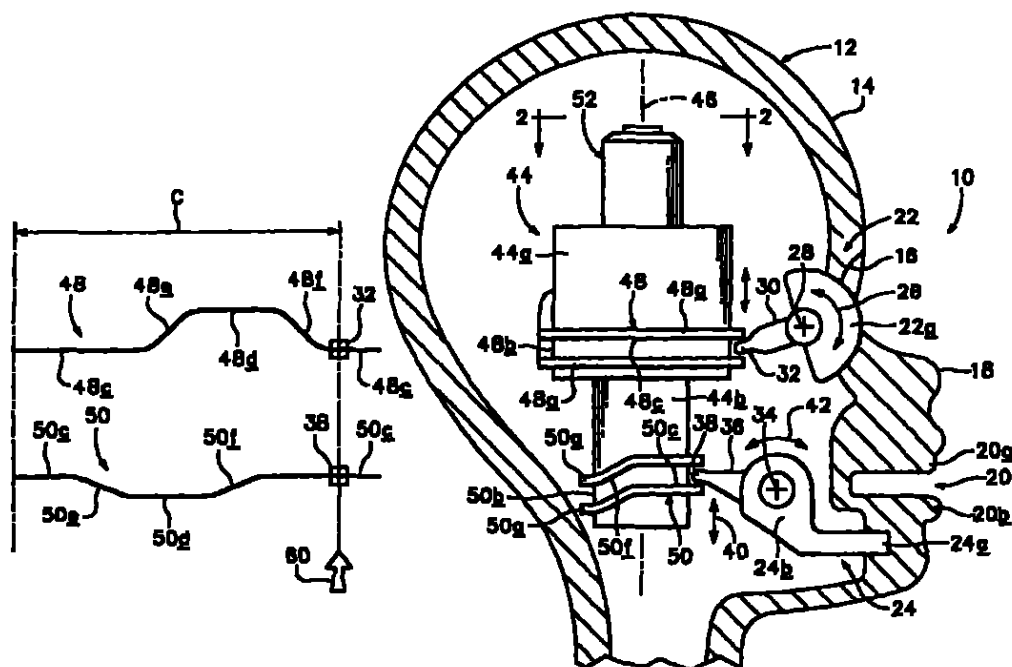
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(54) Title: COMPACT MOTION MECHANISM FOR AN ANIMATED DOLL



(57) Abstract: A tiny articulation eye (22) and mouth (24) (facial-expression structures) opening and closing structure installable in the hollow interior of a doll head (12), and utilizing a single, upright-axis motor (52), and a rotary, co-axial, stepped-diameter drum (44) which is rotated by the motor. Circumferential drive tracks (48, 50) formed on the outside of the drum drive followers (38) and actuation which directly impart opening and closing motions in the doll head's eye and mouth.



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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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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 3,462,875 A (MAY) 26 August 1969, see the entire document.	1
A	US 3,769,745 A (CROSSMAN) 06 November 1973, see the entire document.	1
A	US 4,005,545 A (PTASZEK et al.) 01 February 1977, see the entire document.	1
A	US 5,520,566 A (LIN) 28 May 1996, see the entire document.	1
A	US 5,833,513 A (LLORENS) 10 November 1998, see the entire document.	1

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

* Special categories of cited documents	* I	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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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COMPACT MOTION MECHANISM FOR AN ANIMATED DOLL

Cross-Reference to Related Application

This application claims priority to Provisional Patent Application Serial
5 No. 60/268,317 filed February 12, 2001 titled "Compact Mechanism for an Animated Doll" which is hereby incorporated by reference.

Field of the Invention

The present invention relates to a toy doll, and in particular, to a toy doll which
has plural, movable facial-expression structures, such as openable and closeable eyes,
10 and an openable and closeable mouth, operated under the influence of a compact
single motor and drive mechanism which fits within the hollow interior of the head
component in the doll. For illustration purposes, an embodiment of the invention is
described herein with specific reference to movable eye and mouth structures -- a
setting wherein the invention has shown itself to offer particular utility the invention,
15 as will become apparent, can offer similar utility in relation to other kinds of movable
facial-expression structures.

Background and Summary of the Invention

For many years, animated toy dolls have been popular toys for children. Over
these years, more and more sophistication in design has been brought to bear upon the
20 realistic nature of selected animated doll motions in relation to facial-expression
structures, and in particular, to such motions which, in addition to appearing to be
relatively natural, also occur in a pattern which is not easily learned very quickly by a
child -- an event which might too soon lessen the child's interest in continuing to play
with a doll.

25 Various motorized or electronic dolls are shown in U.S. Patent Nos. 3,298,130,
3,767,901, 3,912,694, 4,139,968, 4,207,704, 4,767,374, 4,825,136, 4,840,602,
4,900,289, 5,141,464, 5,158,492, 5,191,615, 5,281,143, 5,413,516, 5,636,994,
5,820,441, 6,048,209, and PCT Publication No. WO 00/35548, the disclosures of
which are all incorporated herein by reference.

The present invention proposes a very compact, single-motor-driven animation structure effectively mounted within the hollow interior of a doll's head component for opening and closing the doll's eyes and mouth (facial-expression structures) in manners which are relatively realistic. Additionally, the animation structure of the present invention operates in a complex enough pattern that memorization of the pattern is not too likely, especially in the case of young children. The invention also proposes such an animation structure which, in relation to its compactness, is extremely simple, and which can be easily incorporated into an even very tiny doll head component such as, for example, a doll head which might be roughly the size of a golf ball.

These and other interesting features and contributions which are made by the present invention in the field of animated toy dolls will become more fully apparent as the description which now follows is read in conjunction with the accompanying drawings.

Description of the Drawings

Fig. 1 is a simplified cut-away drawing of a toy doll (shown only fragmentarily) including a head component wherein movable eye and mouth structures are furnished and driven according to the present invention. In this figure, two graphical lines (a graphical representation) presented at the left side of the figure act as explanatory aids in describing motions that can be produced according to the invention in these eye and mouth structures.

Fig. 2 is an enlarged, fragmentary, simplified plan view taken generally along the line 2-2 in Fig. 1.

Fig. 3 is an unfolded (or developed) layout drawing of a rotary drive drum containing driver track structure which is constructed in accordance with the present invention.

Fig. 4 is a graphical drawing which is similar to the one shown at the left side in Fig. 1, specifically illustrating different phases of motion and positioning in a single cycle of eye and mouth movement produced according to the invention.

Fig. 5 is very much like Fig. 1, except that, whereas Fig. 1 illustrates the movable eye and mouth structures in conditions with the eyes and the mouth both open, Fig. 5 shows a condition where the eyes are closed and the mouth is open.

Fig. 6 is like Fig. 1 and Fig. 5, except that here a condition is illustrated wherein the eyes and the mouth are both closed.

Fig. 7 is similar to Figs. 1, 5 and 6, but illustrates yet another condition in the doll wherein the eyes are open and the mouth is closed.

Detailed Description of, and Best Mode for
Carrying Out, the Invention

Turning now to the drawings, and referring first of all most particularly to Figs. 1, 2 and 3, illustrated generally at 10 is a fragmentary portion (the head portion) of a toy doll which includes a hollow, typically plastic, molded head component 12. In doll 10, head component 12 is the size roughly of a conventional golf ball. The facial features of this doll head include a forehead 14, eye openings, such as the single eye opening shown at 16, a nose 18, and a mouth 20 which, in Fig. 1, is shown in an open condition. Preferably, the structural material which makes up head component 12 is sufficiently flexible, at least in the region of mouth 20, to enable reasonably realistic opening and closing motion in this region, so that a closed condition for the mouth, such as is illustrated in Figs. 6 and 7, can be achieved simply by producing relative closing motion between the upper and lower lip structure 20a, 20b, respectively, in mouth 20.

Provided in accordance with the present invention are two articulated-motion, facial-expression structures including an eye structure 22 and a mouth structure 24 which are mounted and disposed within the hollow interior of head component 12.

Eye structure 22 includes a pair of generally hemispherical movable eye components, such as the single eye component shown at 22a in Fig. 1. These eye components, that are also collectively referred to herein as motion eye structure, are pivotally mounted for rotation reversibly, as indicated generally by double-ended curved arrow 26 in Fig. 1, on a pivot axis 28. Shown at 30, joined to component 22a, and to its counterpart which is hidden in Fig. 1 behind component 22a, is a single,

elongate actuator which extends radially away from axis 28, on the opposite side of this axis from the two eye components. The left end of actuator 30 in Fig. 1 includes what is referred to herein as a track follower 32.

With up and down motion imparted to follower 32, the actuator rotates the eye structure as indicated by arrow 26 about pivot axis 28, between what is already been referred to herein as open and closed conditions. When the follower and actuator structures are in the positions generally shown for them in Fig. 1, the eye structure sits in what can be thought of as its counterclockwise motion limit condition, which condition defines the mentioned open condition to the eye structure. With upward motion in follower 32, and related motion in actuator 30, the eye structure rotates clockwise about axis 28 in Fig. 1 toward, and finally ending at, a condition similar to that shown in Fig. 5, wherein the eye structure is closed. In this situation, the eye structure is in its clockwise motion limit condition.

Mouth structure 24 includes an elongate extension element 24a which is disposed appropriately within head component 12 in the region just beneath lower lip 20d. Element 24a directly connects as shown to the lower lip portion 20d in the mouth structure. Extension element 24a extends from a body 24b which is appropriately pivoted on the inside of head component 12 for reversible rotation about an axis shown at 34 in Fig. 1. Axis 34 is disposed below and generally parallel to axis 28, and both of these axes are oriented substantially normal to the plane of Fig. 1. Provided for mouth structure 24 is an elongate actuator extension 36 which has, at its outer end, a track follower 38. With up and down movement of follower 38, as generally indicated by double-ended arrow 40, actuator 36 moves in such a fashion as to cause reversible, limited-angle rocking of the mouth structure about axis 34, such rocking being indicated in Fig. 1 by double-ended, curved arrow 42. This rocking motion is delivered to the mouth lower lip through element 24a.

With the various components in and associated with mouth structure 24 in the positions illustrated for them in Fig. 1, the mouth structure sits in what can be thought of as its most clockwise rotated condition, and creates an open condition for mouth 20. When this mouth-associated structure is rocked counterclockwise in Fig. 1 to another

rotation limit condition, such as that which is pictured in Figs. 6 and 7, the mouth structure places mouth 20 in a closed condition.

Illustrated at 44 in Fig. 1 is a two-diameter (or stepped-diameter) cylindrical drive drum body, or rotary drive device, which has an upright long axis shown at 46, and which includes upper and lower, different-diameter end portions 44a, 44b, respectively. Drum 44 is also referred to herein as a rotary interconnect structure. Drum body 44, which is also referred to herein as a shared rotary drive device, is suitably mounted within the hollow interior of head component 12 for rotation about axis 46. End portions 44a, 44b are also referred to herein as cylindrical elements.

Appropriately formed on, and extending generally circumferentially in a kind of continuous closed-loop fashion about upper drum body end 44a, is an elongate circumferential track 48. This track is defined by upper and lower, spaced, generally parallel walls 48a which define opposite sides of a track groove 48b. Similarly formed on and circumferentially with respect to lower drum body end 44b is another elongate, generally circumferential, closed-loop track 50 which includes spaced side walls 50a that define a track groove 50b. Tracks 48, 50 constitute rotary track instrumentalities herein.

Further included within the hollow interior of head component 12 according to the invention is a single, small electrical drive motor 52. Motor 52 is appropriately, drivingly connected to rotate drum 44 about axis 46. The drive axis of motor 52 is substantially coincident with axis 46. Suitable electrical connections (not shown) are provided for operating motor 52 from an "on board" electrical power source, such as a battery. Motor 52 may be operated, selectively, either always in one rotary direction only, or, if so desired, reversibly in both directions, and in any one of a number of different rotational patterns over time. These operational patterns which may be selected for motor 52 do not form any part of the present invention, and can be implemented according to designer wishes. In the particular structure now being described, motor 52 is constructed to operate unidirectionally, at a fairly constant speed, and in successive, merge-connected cycles which last throughout a time period selected by the person playing with the toy. Such selection can be implemented either

through the closure of an appropriate electrical circuit switch, or may result from other activities such as positional movements, external sounds, etc. None of these considerations also forms any part of the present invention. The stopping of action can occur by opening of the activation circuit either manually with a switch, or
5 automatically after some period of time, some preset number of cycles, the ending of some event which has triggered operation in the first place, or in many other ways.

Looking for a moment at Fig. 2 along with Fig. 1, one can see in Fig. 2 generally the relative dispositions of motor 52 and drum 44 from an above point of view taken downwardly along axis 46. Follower 32 on the outer end of actuator 30 is
10 seen extending into groove 48b in track 48. Similarly, follower 38 on the outer end of actuator 36 can be seen to be extending into groove 50b provided in track 50. Motor 52 is also shown in Fig. 2. So also is rotational axis 46.

Fig. 3 represents a developed, or flattened out, symbolic view of the upper and lower end regions of drum 44. Here one can see generally how tracks 48, 50 are
15 arranged on these two different-diameter drum ends.

In Fig. 1, and referring now to the graphical image that is presented at the left side in this figure, the dimension C shown there represents the full 360° angular lengths of tracks 48, 50. The reason that the graphical image now being discussed in Fig. 1 looks somewhat different from the mechanical developed view pictured in
20 Fig. 3, is that Fig. 3 actually shows the circumferential relative *linear* lengths (or dimensions) of tracks 48, 50, whereas the graphical image in Fig. 1 shows the *angular* circumferential dimensions that relate these two tracks. One can see that, within track 48, there is one region 48c which is the lower-most region pictured in Fig. 1, and another region 48d which is the upper-most region in this track. These two regions are
25 spaced relative to the direction of the longitudinal axis of drum 44, and are joined through angular transition regions (two of them) shown at 48g, 48f. Region 48c is referred to herein also as a low region in track 48, and region 48d as a high region in the track.

Track 50 is somewhat similar in that it includes two longitudinally-spaced
30 regions -- an upper region 50c and a lower region 50d, connected through angular

transition regions shown at 50e, 50f. Region 50c constitutes a high region in track 50, and region 50d a low region in this track.

As will shortly become apparent, Figs. 5, 6 and 7 include, at their respective left sides, graphical representations like the one shown in Fig. 1. These other graphical
5 representations each relate to the eye and mouth conditions specifically pictured in the associated figure.

With the structure of this invention organized as pictured mechanically in Figs. 1-3 and 5-7, inclusive, during each complete, single, rotary cycle created in drum 44 by motor 52, followers 32, 38 follow the paths defined by tracks 48, 50, respectively.
10 The result of this is that these followers shift generally upwardly and downwardly in Fig. 1, with pauses occurring between successive upward and downward motions, to cause related opening and closing rocking motions in eye structure 22 and in mouth structure 24, along with periods of no eye or mouth movements.

Turning at this point to Fig. 4 in the drawings, and further describing the
15 motion activity just referred to, a complete, single 360° cycle of rotation for drum 44 is illustrated. This cycle defines, effectively, eight different kinds of positional changes and behaviors that are created by tracks 48, 50 for followers 32, 38, respectively. The general "boundaries" of these eight phases are marked by dash-dot vertical lines in Fig. 4, and the lengths of the respective phases are marked by brackets
20 provided in this figure. The dash-dot lines in Fig. 4 are labeled L₁-L₈, inclusive, and the brackets, which define the nominal spans of these phases, are shown at B₁-B₈, inclusive.

A single cycle of unidirectional operation will now be described in the context of considering that motor 52 rotates drum 44 in a clockwise direction as pictured in
25 Fig. 2. This context further includes that followers 32, 38 are positioned in track grooves 48b, 50b, respectively, at a moment in time just at the end of that phase (or condition) in which both the eye and the mouth structures have been held open (paused) for a period of time during motor operation. This is the status of things pictured in Fig. 1.

Illustrated in each of the graphical image portions of Figs. 1, 5, 6 and 7 is an upwardly pointing arrow 60 which represents a laterally-moving cursor that points to the regions along tracks 48, 50 then occupied by followers 32, 38, respectively. The cycle description now to be given, with clockwise rotation imparted as just described to the drum, causes cursor 60 effectively to progress in a left-moving direction in the graphical presentations provided in Figs. 1, 5, 6 and 7. It is for this reason that the labeling described above the dashed-dot lines, and the brackets shown in Fig. 4, are given ascending numbers in a progression which is to the left in Fig. 4 along tracks 48, 50.

At the beginning of the single operating cycle now to be described, the physical positions and conditions of the various components are as pictured in Figs. 1, 2 and 3. Followers 32, 38 ride in tracks 48, 50, and specifically are positioned in these tracks (as indicated in Figs. 1, 2 and 3) with the eye structure and the mouth structure each open. The angular positions of the two followers under these circumstances are especially illustrated in the graphical illustration at the left side of Fig. 1, where cursor arrow 60 points to the positions of these two followers along tracks 48, 50.

With clockwise rotation produced by motor 52 in drum 44, relative motion occurs between tracks 48, 50 and cursor 60. In particular, this relative motion is such that the cursor moves to the left simultaneously and equiangularly relative to these two tracks. Put another way, the two tracks move as a unit relatively to the right of cursor 60 in Fig. 1. In the several illustrations (Figs. 1, 5, 6 and 7) herein which employ such graphical representations, the positions of the tracks are retained roughly in the same relative location regarding the pictured cut-away head structure, and cursor 60 is shown in respective conditions moved to different angular locations which are to the left of the condition for the cursor shown in Fig. 1.

Considering now Fig. 4 along with these other figures as an aid in reviewing the operation of the apparatus of this invention, cursor 60 is shown in Fig. 4 in the same position (phase) angularly relative to tracks 48, 50 in which it is shown in Fig. 1. In this phase of a single cycle of operation of the apparatus of the invention, and as has been mentioned earlier, both the eye structure and the mouth structure are in open

conditions. Follower 32 sits in low region 48a within track 48 and follower 38 sits within high region 50c in track 50 (see dash-dot line L₁). As will become apparent, this positional condition for the followers, the actuators, and the eye and mouth structures exists at the end of one of the basically eight different phases of conditions in the apparatus of the invention, and specifically, at the end of a phase wherein both the eye and mouth structures remain essentially stationary and both in open conditions.

As rotation in drum 44 now progresses, follower 32 begins to ride upwardly as urged and guided by inclined region 48f in track 48, and follower 38 remains basically in the same vertical position in the next stretch of track 50. This phase of operation, wherein the mouth structure remains open and the eye structure begins to close, is pictured by bracket B₁ in Fig. 4. When rotation has taken place angularly to a point which represents the "end" of phase B₁ (see dash-dot line L₂), follower 32 now sits in high region 48d in track 48, while follower 38 still resides in high region 50c in track 50. In this set of conditions, the eye structure is closed and the mouth structure open. This condition is pictured in Fig. 5.

There now ensues a phase of operation B₂ where, for a period of time, the eye structure remains closed and the mouth structures remains open. This phase begins at line L₂ in Fig. 4, ends at line L₃, and is reflected by bracketed region B₂. Thus, and as was true in the very first phase of operation, the end of which began this description, both the eye and the mouth structure are once again in nonmoving conditions.

At the end of phase B₂, follower 32 remains in high region 48d of track 48, and follower 38 begins descending in downwardly inclined ramp portion 50f in track 50. This phase of operation, which ends at dash-dot line L₄ in Fig. 4, is marked by bracket B₃ in Fig. 4. This is a phase of operation during which the eye structure remains closed while the mouth structure moves, and specifically moves from an open condition toward a closed condition. This latter condition is pictured in Fig. 6 in the drawings.

At the end of phase B₃, follower 32 is still in high region 48d in track 48, and follower 32 is now in low region 50d in track 50, with the result that the eye structure is still closed, and the mouth structure is now also closed.

5 Dash-dot line L₄ marks the beginning of the next phase B₄ in the condition of the apparatus of this invention -- a phase which ends with dash-dot line L₅. In phase B₄, both the eye structure and the mouth structure remain stationary, with the eye structure closed and the mouth structure also closed. This is the Fig. 6 condition.

10 The next phase to follow is pictured at B₅ in Fig. 4, beginning with dash-dot line L₅ and ending with dash-dot line L₆ in the figure. During this phase, follower 32 is moved downwardly along downwardly inclined portion 48e in track 48, while follower 38 remains unmoved in low region 50d in track 50. Thus, during phase B₅, the eye structure changes from a closed to an open condition while the mouth structure remains closed.

15 At the end of phase B₅, a condition exists where follower 32 is now again in low region 48e in track 48, while follower 38 is still also in low region 50d in track 50. There then follows a phase marked B₆ in Fig. 4, beginning with dash-dot line L₆ and ending with dash-dot line L₇. During phase B₆ both the eye and the mouth structures are stationary, with the eye structure open and the mouth structure closed. This condition is illustrated in Fig. 7 in the drawings.

20 What next follows is a phase marked B₇ in Fig. 4 during which phase follower 32 remains in low region 48e in track 48, while follower 38 begins to move upwardly under the influence of rising ramp portion 50e in track 50. This is a phase during which the eye structure remains open, while the mouth structure transitions from a closed to an open condition. At the end of phase B₇, the components in the apparatus of this invention, vis-a-vis the conditions (open or closed of the eye structure and the mouth structure), are the same as those which existed at the beginning of this described single cycle of operation. The phase of operation during which this exists is pictured by bracket B₈ in Fig. 4. This phase begins with dash-dot line L₈ and ends with previously-mentioned dash-dot line L₁ which, because of the developed-view nature of Fig. 4, appears both at the left and right sides of this figure. During phase B₈,

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follower 32 remains in low region 48c in track 48, while follower 38 remains in high region 50c in track 50. In this phase, both the eye and the mouth structures are held stationary in open conditions.

5 It can thus be seen how, in a single, unidirectional cycle of rotation and operation of motor 52 and drum 44, a fairly complex and quite natural series of phases of eye openings, eye closings, mouth openings, mouth closings, accompanied by times when both the eyes and mouth are stationary in respective different open or closed conditions, takes place. The operation specifically described contains generally eight
10 different phases of operation, with four phases involving nonmoving conditions in the eye structure and mouth structure, interleaved by four other phases where one but not the other one of these two structures is put into motion between an open and a closed condition, or vice versa.

The pattern of operation just described can also be seen to be one which is not easily quickly memorized, and one which, depending upon the particular starting set
15 of positions for the various components in the mechanism of this invention, cannot easily be predicted — vis-a-vis what is next to happen. This statement, of course, assumes that operation of the apparatus of the invention can be stopped at any point in any one of its different phases, and this is an operating condition which the invention readily accommodates, and which is truly a matter of designer choice. Another option,
20 of course, would be to have the components of the mechanism of this invention always advance to and stop in a particular selected starting and stopping condition each time that it is started and stopped. Other patterns of operation can, of course, be chosen at the selection of a designer of a doll employing this invention.

Further, the patterns described by tracks 48, 50 on and around the
25 circumferences of drum ends 44a, 44b, can take on a host of different characteristics to produce a very different set, or very different sets, of patterns of interrelated opening and closing operations for the eye and mouth structures. For example, the number of times that opening and closing occurs in a single 360° turn of drum 44, and the angular rotational conditions during which changes takes place, or constancy
30 holds, can be modified easily from design to design. So also can be the amount of

vertical travel produced in the followers by vertical changes in the angular positions of the relative associated tracks.

The fact that, in the mechanism proposed by this invention, the up and down directions in which the followers move is mimicked by the up and down movements of the eye and mouth structures leads to overall simplicity in the structure of the invention. By stepping the diameter of the different drum regions that carry tracks, and by selecting the locations of horizontal pivot axes 28, 34, and all in relation to, selecting the lengths of actuators 30, 36, the apparent relative amounts of opening and closing motions that are producible in the eye and mouth structures are readily varied from design to design.

The structure of this invention, as can clearly be seen, involves a very few, relatively simply manufactured components, which may be molded plastic components. Also, the invention requires only a single, tiny electrical drive motor. These factors yield a structure which is easily miniaturized enough to fit within the hollow interior of an even very small doll head.

Without making any appreciable changes in the mechanical constructions of the eye and mouth structures, the actuators, the followers, the drum and the tracks herein, but simply by allowing motor 52 to operate bidirectionally, either by direct user selection, or in scheduled alternation, or even in random alteration, the patterns of eye structure and mouth structure openings and closings can be made to be far more complex. Such further complexity would thus make it far more difficult, almost to the point of impossibility, to predict what the next action will be, particularly on start-up of motion if that start-up is also initiated in a kind of random fashion.

Accordingly, a unique animated doll head mechanism, with a sophisticated, difficult to memorize and yet quite realistic set of motions, all employable in very tiny doll head structures, is proposed by the present invention. This mechanism, while offering, as stated earlier herein, special utility with respect to working with movable eye and mouth structures, can also be employed to work with other kinds of facial-expression structures.

It is believed that the following claims particularly point out certain combinations and subcombinations that are directed to one of the disclosed inventions and are novel and non-obvious. Inventions embodied in other combinations and subcombinations of features, functions, elements and/or properties may be claimed through amendment of the present claims or presentation of new claims in this or a related application. Such amended or new claims, whether they are directed to a different invention or directed to the same invention, whether different, broader, narrower or equal in scope to the original claims, are also regarded as included within the subject matter of the inventions of the present disclosure.

I CLAIM:

1. An animated toy doll comprising
a hollow doll head component,
plural, changeable-position, movable facial-expression structures movably
5 mounted on said head component, and
a single, shared, rotary drive device rotatably disposed within said head
component and operatively drivably connected to said facial-expression structures,
whereby rotation of this device produces defined, coordinated, related, respective
position-changing motions in said structures;
10 wherein said drive device takes the form of plural co-axial, operatively
connected, different-diameter cylindrical elements.
2. The doll of claim 1, wherein said facial-expression structures are
mounted on said head component for bidirectional reciprocation.
15
3. The doll of claim 1, wherein said cylindrical elements form axially-
spaced portions of a unitary drum.
4. The doll of claim 1, wherein said facial-expression structures are
20 generally vertically reciprocable, and said drive device is supported for rotation about
an upright axis.
5. The doll of claims 1 or 4 which further includes a single, selectively
power-operated drive motor disposed within said head component and drivingly
25 connected to said drive device, operable to rotate the device.
6. An animated toy doll comprising
a hollow doll head component,
generally vertically reciprocable, openable and closable eye and mouth
30 structures movably mounted on said head component, and

a single, shared, rotary drive device rotatably disposed within said head component and operatively, drivably connected to said eye and mouth structures, whereby rotation of this device produces defined, coordinated, related, respective opening and closing motions in the eye and mouth structures.

5

7. The doll of claim 6 which further includes a single, selectively power-operated drive motor disposed within said head component and drivingly connected to said drive device, operable to rotate said device.

10

8. The doll of claims 6 or 7, wherein said drive device takes the form generally of an elongate, upright-axis, cylindrical body having upper and lower cylindrical ends, which body is mounted within the head component for rotation about its upright long axis, and a pair of elongate, motion-promoting, generally circumferential drive tracks formed, one each, on the outside of a different one of said ends, with each track being operatively associated with a different one of said eye and mouth structures.

15

9. The doll of claim 8, wherein each track, progressing therealong circumferentially about its associated cylindrical body end, is at least partially defined by adjacent track regions that are characterized by having different longitudinal positions relative to the axial length of said body.

20

10. The doll of claims 8 or 9, wherein said tracks are circumferentially continuous, and generally closed-loop in character.

25

11. The doll of claims 8, 9 or 10 which further includes two pivoted actuators, one operatively connected to and for each of said eye and mouth structures, and the actuator for each associated eye or mouth structure provides, at least in part, the operative driving connection between that associated structure and the associated track in said rotary drive device.

30

12. The doll of claim 11, wherein the actuator associated with each of said eye and mouth structures includes a track follower which is drivingly engaged with the associated track.

5 13. The doll of claim 6, wherein said drive device is configured to produce, with its rotation, a pattern of related eye and mouth openings and closings in plural, successive, cyclic phases, including both (a) phases in which one only of the eye or mouth structures is shifting in some manner between open and closed conditions, while the other structure retains a non-changing condition, and (b) phases in which
10 both eye and mouth structures retain non-changing conditions.

14. The doll of claim 13, wherein said drive device is specifically configured, whereby a motion in either direction between an open and a closed condition is permitted for only one of said eye and mouth structures at a time.

15

15. The doll of claim 13, wherein said drive device is specifically configured, whereby each phase that involves any motion of one of said eye and mouth structures in some manner between open and closed conditions is followed by a next-successive phase which involves no such motion in either of these structures, and
20 vice-versa.

16. Animated doll-head structure comprising
a head component with a hollow interior,
nominally independently openable and closeable movable eye and mouth
25 structures, each mounted for reversible opening and closing motions on said head component,
for each of said movable structures, and disposed within the interior of said head component, a respective, associated, operatively connected pivoted actuator including a follower drivable to move the actuator in a manner producing related
30 motions and positioning controls in the associated movable eye or mouth structure,

for each of said followers, and also disposed within the interior of said head component, a respective, associated, operatively connected, cyclically drivable rotary track instrumentality, operable, with rotation of the instrumentality, to create related cyclical movements in the follower and in the follower's associated actuator, thus to
5 produce related cyclic motions and positioning controls in the associated movable eye or mouth structure,

rotary interconnect structure operatively and drivingly interconnecting said track instrumentalities for co-rotation as a unit with interconnect structure, and

a single, power-operated motor disposed adjacent and drivingly connected to
10 said interconnect structure within the hollow interior of said head component, operable to rotate the interconnect structure so as to create, ultimately, cyclic opening, closing and position control in and for said eye and mouth structures.

17. Animation structure in a doll head which is hollow, said animation
15 structure, with the doll head disposed substantially upright, comprising:

movable eye structure mounted on the head, raisable and lowerable appropriately between open and closed conditions,

movable mouth structure mounted on the head below said eye structure, raisable and lowerable appropriately between closed and open conditions,

20 a pivoted actuator for each of said eye and mouth structures, drivingly connected thereto and each including a portion which is generally reversibly vertically movable to effect driving interaction with the associated eye or mouth structure,

a single, elongate rotary drive drum mounted within the head for rotation about the drum's long axis which has a generally vertical disposition, and which drum is
25 located closely adjacent said eye and mouth structures,

two, vertically disposed, generally circumferential drive tracks formed on the outside of said drum, each drivingly engaged with a different one of said actuator's said portions, and

a single, power-operated drive motor disposed within the doll head, drivingly
30 connected to said drum, and having a drive axis which is substantially coincident with

said drum's said long axis, operable to drive said drum in rotation, thus to effect, through interaction with said actuators, relative, coordinated raising and lowering of said eye and mouth structures.

5 18. The doll head of claim 17, wherein said motor is selectively operable unidirectionally to produce successive, cyclic, continuous rotation of said drum, thus to create successive, cyclic raisings and lowerings of said eye and mouth structures.

10 19. An animated toy doll comprising
 a hollow body component,
 plural, outwardly visible, changeable-position, movable body-expression structures movably mounted on said body component,
 for each said body-expression structure, a rotary drive member rotatably disposed within said body component and operatively drivably connected to its
 15 associated body-expression structure, whereby rotation of the device produces defined position-changing motions in that structure and
 interconnection structure operatively interconnecting said rotary drive members for defined, coordinated rotational movements;
 wherein each drive member comprises a cylindrical structure having a
 20 diameter and an axis of rotational symmetry which is also an axis of rotation for the cylindrical structure, and said cylindrical structures have different respective diameters, and axes of rotation which are common to one another.

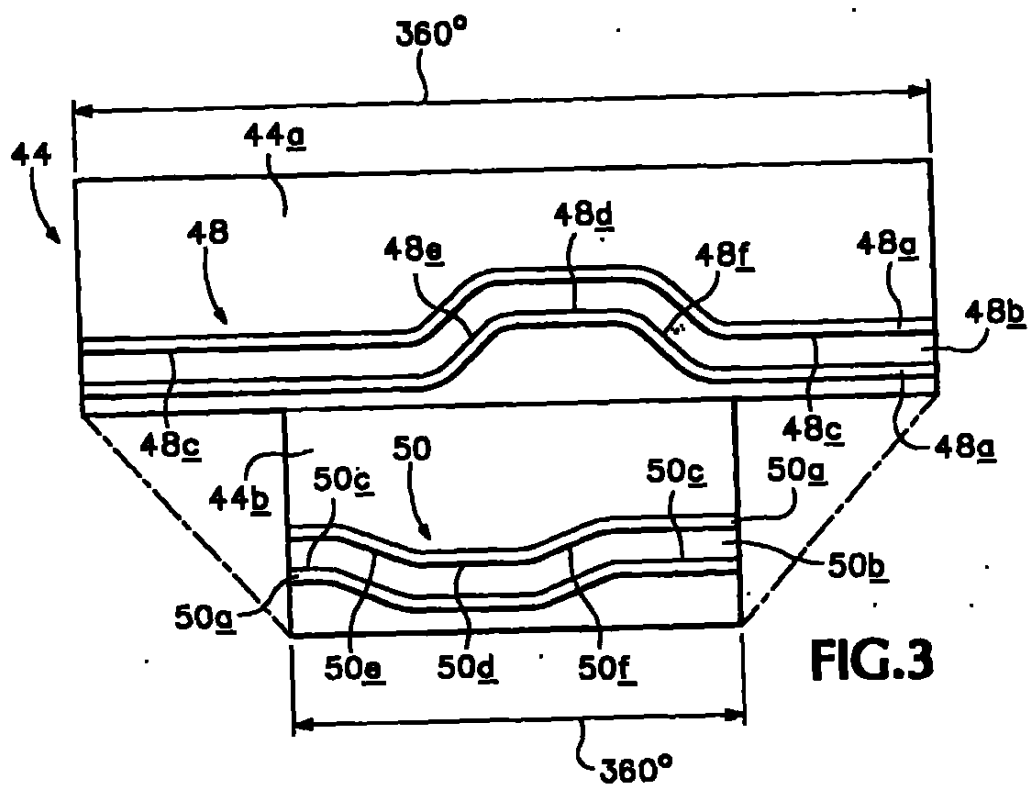
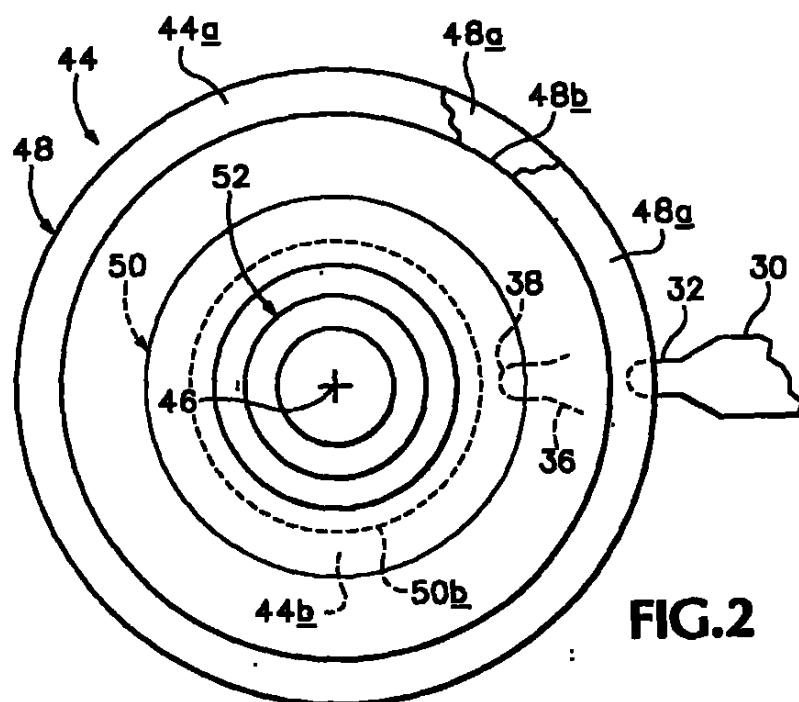
25 20. The doll of claim 19, wherein said drive members form axially spaced portions of a unitary drum.

30 21. The doll of claim 20 which further includes a single, selectively power-operated drive motor disposed within said body component and drivingly connected in common to said rotary drive members.

25

22. The doll of claim 20 which further includes a single, selectively power-operated drive motor disposed within said body component and drivingly connected in common to said rotary drive members.

5 23. The doll of claim 19 which further includes a single, selectively power-operated drive motor disposed within said body component and drivingly connected in common to said rotary drive members.



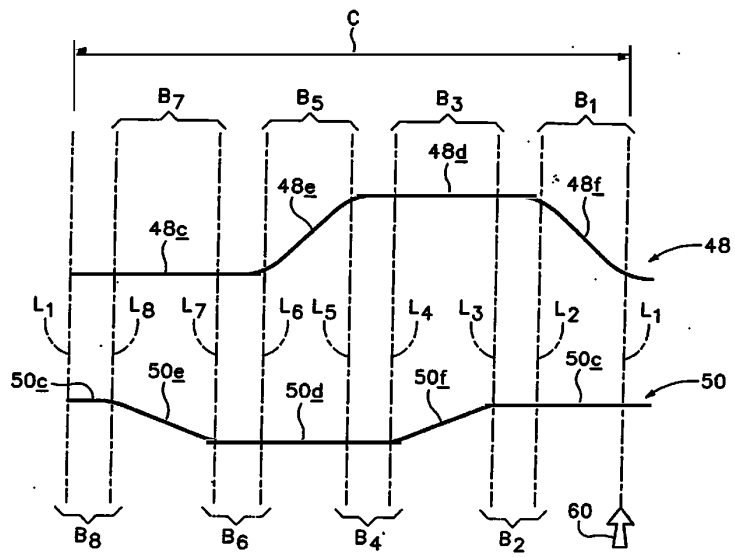
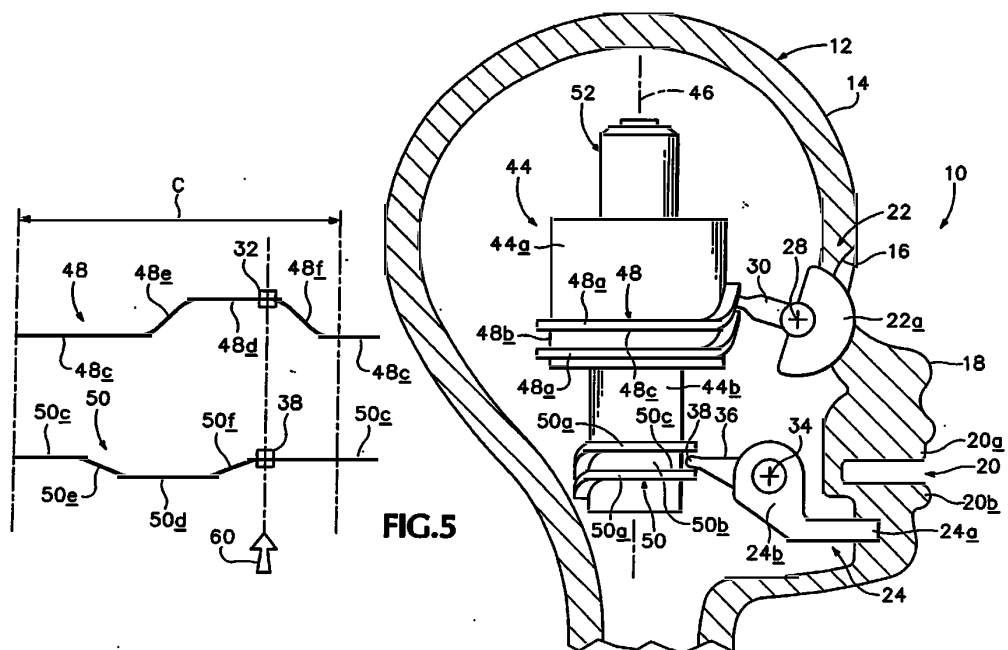
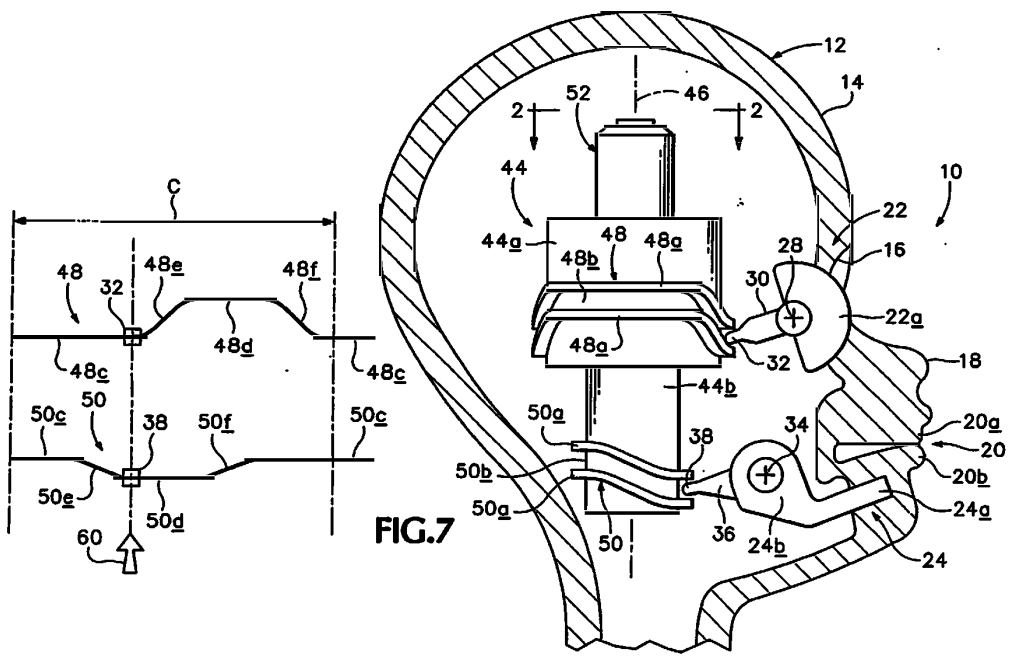


FIG. 4





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32

Expediente No		No de Folio
Item	No de unidades	
1	CD	✓
2	DVD	
3	REVISTA	
4	LIBRO	
5	PERIODICO	
6	DISQUETES	
7	SOBRE DE MANILA X	✓
8	SOBRE BLANCO TAMAÑO CARTA	
9	SOBRE BLANCO TAMAÑO OFICIO	
10	OTROS:	

Observaciones: Contiene Arte final

CAVELIER

ABOGADOS

EDIFICIO SIAKI

CARRERA 4ª N° 72-35

BOGOTÁ, D. C. - COLOMBIA

REPRESENTACION Y PODER

For patents, utility designs, trademarks, service marks, commercial names, insignia.

Para patentes, modelos y dibujos industriales, marcas de fábrica y de servicio, nombres comerciales y enseñas.

REPRESENTATION AND POWER OF ATTORNEY

X (we), the undersigned / Yo (nosotros), abajo firmado(s)

MATTEL, INC.

of / domiciliado(s) en 333 Continental Blvd.,

El Segundo, California 90245-5012 U.S.A.

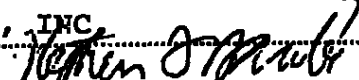
por el presente nombramos a GERMAN CAVELIER, tpa. 832; GONZALO PERDOMO, tpa. 831; ERNESTO CAVELIER, tpa. 11519; y EMILIO FERRERO, tpa. 31929; domiciliados en la Carrera 4ª N° 72-35, Bogotá, Colombia, en obediencia a lo dispuesto en el parágrafo 1º del Artículo 543 del Código de Comercio, el primero como principal y los demás como suplentes, en su orden, como nuestros representantes en todos los asuntos de propiedad industrial con facultad para recibir notificaciones y nombrar apoderados judiciales o extrajudiciales. El primer representante suplente reemplazará al principal en caso de ausencia o impedimento temporal o definitivo de aquél. La misma regla se aplicará cuando el segundo representante suplente haya de reemplazar al primero, o el tercero al segundo. En tales casos, el representante principal, o el primero, o segundo suplente, en su caso, o ambos, declararán su intención de no ejercer la representación mediante declaración autenticada por Notario Público en Colombia, o por Notario u otro Funcionario Público, o Cónsul de Colombia, en el extranjero; y si se tratare de impedimento, con el certificado respectivo. Si alguno de los nombrados faltare definitivamente, el siguiente tomará su lugar. Cuando cesare la ausencia o impedimento del representante principal, o de su primero o segundo suplente, en su caso, podrán ejercer la representación, en su orden, uno u otros según el caso; asumiéndola por el solo hecho de ejercerla, cesando en ese momento el ejercicio de la representación por el primero, segundo o tercer suplente en su caso. Además, y bajo las mismas reglas, conferimos poder a los abogados arriba nombrados, para obtener la protección de mi (nuestra) propiedad industrial y contra la competencia desleal, a cuyo efecto autorizo(amos) a los dichos apoderados para que me(nos) representen ante cualesquiera entidades o personas, ejerzan o no jurisdicción, especialmente ante las del orden administrativo, contencioso-administrativo y judicial, en todo lo concerniente a los siguientes asuntos: a) Obtención de patentes de invención, modelos y dibujos industriales; el registro de marcas de fábrica, colectivas, defensivas y de servicios; el depósito de nombres comerciales y enseñas; su renovación, traspaso, cambio de nombre o domicilio, cancelación voluntaria; y el registro de licencias de uso de esos derechos; b) Las acciones de oposición, cancelación, nulidad, medidas cautelares, concesión de licencias y en general los juicios civiles, penales, administrativos o contencioso-administrativos relacionados con estos derechos; acciones y juicios que promovamos o se nos promuevan. Y para que en todos los asuntos arriba determinados, puedan sustituir este mandato, transigir, desistir, cancelar, recibir, renunciar, y ratificar los actos hechos por agentes oficiosos.

in due compliance with the terms of paragraph 1st. of article 543 of the Commercial Code, do hereby appoint GERMAN CAVELIER, tpa. 832; GONZALO PERDOMO, tpa. 831; ERNESTO CAVELIER, tpa. 11519; and EMILIO FERRERO, tpa. 31929; domiciled at Carrera 4ª N° 72-35, Bogotá, Colombia, the first as principal and the others as alternates, in the order of their appointment, as our representatives for all industrial property matters with faculty to receive notifications and to appoint attorneys in and out of Court. The first alternate shall replace the principal in case of his absence or of temporal or definitive impediment. The same rule will apply when the second alternate representative is to replace the first one, or when the third is to replace the second. In such cases, the principal representative, or the first or second alternates in their turn, or both of them, shall state their intention not to act as representatives through a declaration given before a Notary Public in Colombia, or before a Notary or another Public Official or a Colombian Consul abroad; and in case of impediment, the appropriate certificate shall suffice. If any of the appointees were to be definitely absent, the following alternate shall take his place. When the absence or impediment of the principal representative, or of the first or second alternate in their turn ceases, the representation can be taken again in their sequence, by the principal, the first or second alternate depending on case, and the mere fact of its exercise will suffice. The exercise of the representation by the first, second or third alternates in their turn shall end at such time. In addition, we grant a Power of Attorney in favor of the above-named attorneys-at-law so that they may obtain the protection of my (our) industrial property and against the unfair competition, for which purpose I (we) authorize the said attorney to represent me (us) before any authorities or persons, with or without jurisdiction, especially before administrative and administrative contentious jurisdictions, and all matters concerning the following: a) Obtaining of patents, models and designs; the registration of trademarks, collective, defensive and service marks; the deposit of commercial names and insignia; its renewal, assignment, change of name or domicile, voluntary cancellation; and the registration of licenses of use of the above rights; b) Actions of opposition, cancellation, nullity, infringement, granting of licenses and in general the civil, penal, and administrative suits relating to these rights; actions and suits instituted by me (us) or against me (us). And that in all the above matters they may substitute this Power of Attorney, compromise, desist, cancel, receive, resign, and ratify acts done by representatives without a power of attorney.

Given and signed this / Dado y firmado hoy.....

8th day of August.....

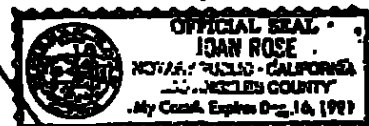
in / en El Segundo, California.....

MATTEL, INC.
Firma  Signature

Stephen L. Hartley, Assistant Secretary

(Notary should execute on other side)
(Consular legalization necessary).

TRADUCCION OFICIAL No. 533/91
ALICIA GROOM
INTERPRETE OFICIAL
RESOLUCION No. 2193, ABRIL 17, 1989
DEL MINISTERIO DE JUSTICIA.



CERTIFICADO NOTARIAL (INDIVIDUO)

A los días del mes de de 19....

ante mí, Notario Público de

compareció(eron) personalmente

a quien(es) doy fe de conocer y me consta que es (son) la(s) persona(s) firmante(s) del documento que precede, y quien(es) tiene(n) capacidad legal para otorgarlo.

..... Notario Público — Notary Public.....

CERTIFICADO NOTARIAL (SOCIEDAD)

Hoy, de agosto re 19 91

compareció(eron) ante mí Stephen L. Hartley

a quien(es) conozco personalmente y que firma(n) este documento en representación de la Sociedad/Compañía denominada .. MATTEL, INC.

Certifico:

1. Que he visto los siguientes documento: *

Certificado de Constitución confir-

mado de MATTEL, INC.

COMO NOTARIO ENVIÓ LA FOTOCOPIA

DE DOCUMENTO, HAGO CONSTAR QUE LA

FOTOCOPIA COINCIDE CON EL ORIGINAL

QUE ME TRAJERON A LA VISTA

12 AGO 2003

Que dichos documentos prueban lo siguiente:

2.1. Que MATTEL, INC.

es una Sociedad/Compañía legalmente constituida y

existente de acuerdo con las leyes de el Estado de

Delaware

2.2. Que el domicilio de dicha Sociedad/Compañía es

333 Continental Blvd., El Segundo,

California

2.3. Que el objeto u objeto para los cuales se otorga

el presente poder están comprendidos dentro del ob-

jeto social de la mencionada Sociedad/Compañía.

2.4. Que el Sr. Stephen L. Hartley

está(X) autorizado(s) para otorgar el presente Poder.

Ciudad El Segundo

Estado California

Hoy 6 de agosto de 19 91

..... Notario Público — Notary Public.....

Documents must be identified with date and origin.

TRADUCCION OFICIAL N. 333/91
ALICIA GROOT
INTERPRETE OFICIAL
RESOLUCION No. 2193, ABRIL 17, 1987
DEL MINISTERIO DE JUSTICIA.

NOTARIAL CERTIFICATE (INDIVIDUAL)

On this 6th. day of August 1991

before me, a Notary Public of

Los Angeles County, State of

California, that Stephen L.

Hartley is

to me known, and known to me to be the person(s) who executed that foregoing document, and who has (have) legal capacity to execute it.

Joan Rose

NOTARIAL CERTIFICATE (CORPORATION)

On this 6th. day of August 1991

appeared before me Stephen L. Hartley

who(m) I know personally and who(m) signed this document as representative(s) of the Corporation/Company named MATTEL, INC.

I Certify:

1. That I have seen the following documents *:

RESTATED CERTIFICATE OF
INCORPORATION OF MATTEL, INC.

2. That the above documents duly prove the following:

2.1. That MATTEL, INC.

is a Corporation/Company legally constituted and in existence in accordance with the laws of the state of Delaware

2.2. That the domicile of said Corporation/Company is

333 Continental Blvd

El Segundo California

2.3. That the purpose of purposes for which the present Power of Attorney is granted are comprised within the corporation purposes set forth in the charter of the mentioned Corporation/Company.

2.4. That Mr. Stephen L. Hartley

is(are) authorized to grant the present Power of Attorney.

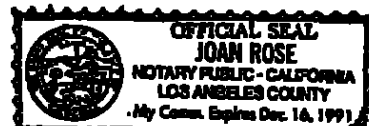
City El Segundo

State California

This 6th day of August 19 91

Joan Rose

* Los documentos deben identificarse con fecha y origen.



34

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

I, CHARLES WEISSBURD, Registrar-Recorder/County Clerk of the County of Los Angeles, State of California, a public entity having by law
a seal do hereby certify that Jean Rose whose name is subscribed to the annexed

acknowledgment, proof or affidavit, was at the time of signing same a Notary Public FOR LOS ANGELES COUNTY, duly commissioned and sworn, with principal place of business or employment in said County, and was, as such, an officer of said State, duly authorized by the laws thereof to execute the same, as well as to execute the proof and acknowledgment of deeds and other instruments of writing to be recorded in said State, to take depositions and/or affidavits, and to administer oaths or affirmations, in any County in this State, and that full faith and credit are and ought to be given to said officer's official acts; that the proof or certificate of such officer is required to be under seal; that the impression of the official seal of said officer is not required by law to be on file in the office of the County Clerk; I further certify that I am well acquainted with the handwriting of said officer and verily believe that the signature to the attached document is genuine, and further that the annexed instrument is executed according to the laws of the State of California.

Signed and seal of aforesaid County affixed at Los Angeles

AUG 07 1991

on

Charles Weissburd

Charles Weissburd, Registrar-Recorder/County Clerk of the County
of Los Angeles, State of California.

TRADUCCION OFICIAL No. 333/4
ALICIA GROOT
INTERPRETE OFICIAL
RESOLUCION No. 2191, ABRIL 17, 1988
DEL MINISTERIO DE JUSTICIA

COMU A TAJAO SEXTO SECT RARO
LOS DOCE A TAJAO CONVENIEN LA
FOTOCOPIA CONNOR CON LA LUNAL
QUE A TAJAO A LA NOTA
12 AGO 2003
JUAN MANUEL GUTIERREZ MEDINA
NOTARIO

78C525/R1-91

CONSULADO DE COLOMBIA No. 2073

(6) Angela de Agosto 8/91
Lugar y fecha

TRADUCCION OFICIAL No. 333/91
ALICIA GROOT
INTERPRETE OFICIAL
RESOLUCION No. 2195, ABRIL 17, 1988
DEL MINISTERIO DE JUSTICIA

SUSCRITO CONSUL DE COLOMBIA

CERTIFICA

que el señor Charles Weissbard

autoriza el presente documento,

que legalmente, en la fecha allí

firmada, las funciones de

Comandante en Jefe por Angela

la firma y sello que en el docu-

mento aparecen como suyos son los que

aparecen en sus actos oficiales

y acostumbra en sus actos oficiales

EL CONSUL NO ASUME RESPONSABILIDAD

ALGUN POR EL CONTENIDO DEL

DOCUMENTO.

Firma y sello

Helena B. De Cruz
Viceconsul de Colombia



12 AGO 2003
JUAN MANUEL ROJERO MEDINA
NOTARIO

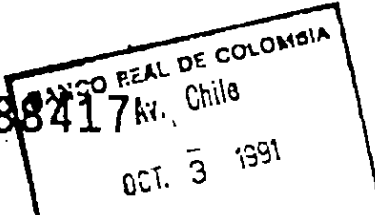
214
Ministerio de Relaciones Exteriores
Sección Negocios Generales

HACE CONSTAR

que el señor Charles Weissbard
cuya firma aparece en el presente documento,
con su firma y sello, en la fecha allí
firmada, las funciones de Comandante en Jefe por Angela

AGSE CAROLINA DE AGOSTO 8/91

891051788417



DECLARACION Y PAGO DEL IMPUESTO DE TIMBRE NACIONAL

BANCO REAL DE COLOMBIA

08-059-01-006032-0

DATOS GENERALES	① Administración de impuestos de: SANTA FE DE BOGOTÁ	Código 03	② Teléfono 2120100	
	③ Documento de identificación (marque X) C.C. o T.I. ☐ NIT. ☒ No. 860.041.367	④ Apellidos y Nombres o Razón Social de las partes (máximo 60 caracteres). CAVELIER ABOGADOS		
	⑤ C.C. o T.I. ☒ NIT. ☐ No. 19'301.629	⑥ Apellidos y Nombres o Razón Social de las partes (máximo 60 caracteres). FORERO ROCHA JAIME		
	⑦ Dirección (de la persona o entidad identificada en la casilla 4) Cra 4a No 72-35	Municipio BOGOTÁ	Departamento CUNDINAMARCA	⑧ Número documentos entradados. 1
CONCEPTO	⑨ Relación al(los) tipo(s) de documento(s), indicando número, fecha, valor y naturaleza de la transacción. TIMBRE TRADUCCION OFICIAL No 383/91 DE OCTUBRE 01 DE 1991, PAGO DE LOS DERECHOS DE TRADUCCION DE UN DOCUMENTO DE REPRESENTACION Y PODER.			
⑩ COLO: 0573-51-037-7				

FIRMA	Responsable del pago
	Nombre C.C. No. 19'301.629

1 VALOR DE IMPUESTO A PAGAR	1.200
2 Sanciones	0
3 Intereses de mora	0
4 TOTAL A PAGAR (renglones 1 + 2 + 3)	1.200
Efectivo ☒ Cheque ☐ No. 1.200	
Código Banco 0000	

MINISTERIO DE HACIENDA
SUBSECRETARÍA DE REGISTRO Y CONTROL
12 AGO 2003

4 2 5 * * * * 1 2 0 0 0 0
5 9 - 0 0 - 0 0 - 1 0 - 2
JUAN CARLOS MEDINA
NOTARIO

CONTRIBUYENTE

TRADUCCION OFICIAL No. 333/91 de un documento escrito en Inglés, el cual para su identificación se sella con el sello del traductor lo mismo que la presente. -----

Autenticaciones que se hallan a continuación de un documento de Representación y Poder, escrito en Inglés y en Español, otorgado por la sociedad MATTEL, INC. a los doctores GERMAN CAVELIER, GONZALO PERDOMO, ERNESTO CAVELIER y EMILIO FERRERO.

Dado y firmado el día 8 de agosto de 1991, en El Segundo, California.

MATTEL, INC.

(firmado) Stephen L. Hartley

Stephen L. Hartley, Secretario Adjunto

(El Notario debe firmar al dorso).

(Es necesaria la legalización Consular).

Al dorso, escrito en Inglés y en Español, Certificado Notarial (Sociedad), referente a la firma del señor Stephen L. Hartley, en representación de la sociedad denominada MATTEL, INC.

Otorgado en la ciudad de El Segundo, Estado de California, el día 6 de agosto de 1991.

(firmado) Joan Rose

Notaria Pública

Hay un sello en tinta que dice: SELLO OFICIAL NOTARIA PUBLICA - CALIFORNIA - CONDADO DE LOS ANGELES - Mi Comisión vence el 16 de diciembre de 1991.

Anexo hay un certificado que dice:

ESTADO DE CALIFORNIA

CONDADO DE LOS ANGELES

Yo, CHARLES WEISSBURD, Registrador y Escribano del Condado del Condado de Los Angeles, Estado de California,

333/91
INTERPRETE OFICIAL
RESOLUCION No. 2182, ABRIL 17, 1988
DEL MINISTERIO DE JUSTICIA.

entidad pública que tiene por ley un sello, por medio del presente certifico que JOAN ROSE, cuyo nombre está suscrito en el adjunto reconocimiento, prueba o declaración juramentada, era en el momento de firmarlo, Notaria Pública PARA EL CONDADO DE LOS ANGELES, debidamente comisionada y juramentada, con la principal sede de negocios o empleo en dicho Condado, y era, como tal, funcionaria de dicho Estado, debidamente autorizada por las leyes del mismo para otorgarlo, así como para otorgar la prueba y reconocimiento de escrituras y demás instrumentos escritos que deban registrarse en dicho Estado, tomar declaraciones y/o testimonios, y administrar juramentos o afirmaciones, en cualquier Condado de este Estado, y que plena fe y crédito se dan y deben darse a los actos oficiales de dicha funcionaria, que se requiere que la prueba o certificado de dicha funcionaria esté bajo sello; que no se requiere por ley que la impresión del sello oficial de dicha funcionaria esté registrada en la oficina del Escribano del Condado. Certifico además que estoy suficientemente familiarizado con la letra de dicha funcionaria y verdaderamente creo que la firma en el documento adjunto es auténtica, como se ve que el instrumento adjunto está otorgado de conformidad con las leyes del Estado de California.

Firmado y puesto el sello del Condado mencionado en Los Angeles, el 7 de agosto de 1991.

(firmado) Charles Weissburd

Charles Weissburd, Registrador y Escribano del Condado del Condado de Los Angeles, Estado de California.

Adherido hay un sello en relieve (oblea dorada), que dice: REGISTRADOR/ESCRIBANO DEL CONDADO - CONDADO DE LOS ANGELES - CALIFORNIA.

TRADUCCION OFICIAL 333/91
ALICIA GARCIA
INTERPRETE OFICIAL
RESOLUCION No. 2195, ABRIL 17, 1987
DEL MINISTERIO DE JUSTICIA.

En español, legalizaciones de la firma del señor Charles Weissburd, hasta por el Ministerio de Relaciones Exteriores de la República de Colombia, bajo el Número 214153, de fecha 26 de septiembre de 1991, firmado por el señor José Angel Aldana, Jefe Negocios Generales.

Pagado el Impuesto de Timbre, por la suma de Seis Dólares (US\$6,00).

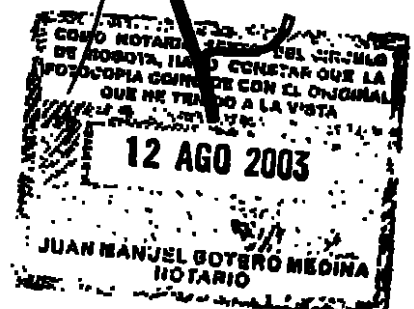
ES TRADUCCION FIEL Y COMPLETA del documento en referencia.

Santa Fe de Bogotá, D.C., Octubre 10. de 1991.

AG/c.

Alicia Ghoot
333/91
TRADUCCION OFICIAL
ALICIA GHOOT
INTERPRETE OFICIAL
RESOLUCION No. 2133, ABRIL 17, 1988
DEL MINISTERIO DE JUSTICIA.

No. 22762
MINISTERIO DE RELACIONES EXTERIORES
SECCION NEGOCIOS GENERALES
HACE CONSTAR:
Cuya firma aparece al pie del presente documento, desempeñaba en la fecha las funciones allí indicadas.
Santa Fe de Bogotá, D. C. 10 OCT. 1991
JOSE ANGEL ALDANA
JEFE NEGOCIOS GENERALES



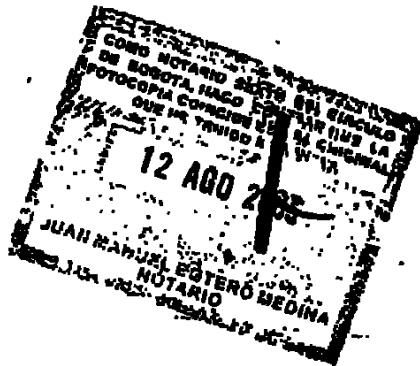
COMO NOTARIA SEXTA DE BOGOTA HAGO CONSTAR QUE LA FIRMA QUE AUTORIZA ESTE DOCUMENTO Y QUE DICE:

Alieu Groot

C. C. No. _____

ES AUTENTICA.
BOGOTA, D. E.,

10 JUL 1991



CAVELIER

ABOGADOS

EDIFICIO SISKI

CARRERA 49, No. 72-35

BOGOTA 8, COLOMBIA

CORREO ELECTRONICO MUNDIAL: CAVE

TELEFONO (57) (1) 2120100

CABLES: CAVELEYES

TELEFAX (57) (1) 2338850

TELEX: 43479 CAVE CO

(2317407375 CAVE UC

Señor Jefe de la
DIVISION DE NUEVAS CREACIONES
Superintendencia de Industria y Comercio
E. S. D.

Poderdante: MATTEL, INC.

Poder conferido el: 08-08-91

Yo, GERMAN CAVELIER, obrando en mi calidad de apoderado principal del poderdante arriba mencionado atentamente manifiesto a Usted que sustituyo el poder que me ha sido conferido en la persona del doctor EMILIO FERRERO, Abogado con Tarjeta Profesional No. 31.929, con todas las facultades que me fueron conferidas.

Hago la anterior sustitución conforme al artículo 66 del Código de Procedimiento Civil ya que los otros sustitutos faltan en este momento.

Señor Jefe,



GERMAN CAVELIER

T.P.A. No. 832

C.C. No. 2.877.924 de Bogotá

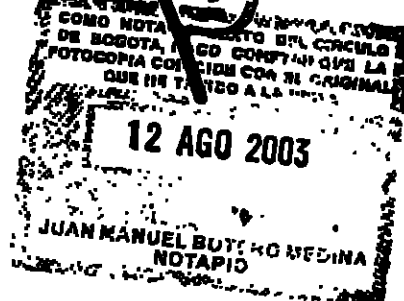
Acepto:



EMILIO FERRERO

T.P.A. No. 31.929

C.C. No. 438.019 de Usaquén



2e-780-2

CAVELIER ABOGADOS NIT. 860.041.367-3

NOTARIA SEXTA DE SANTAFÉ DE BOGOTÁ
RECONOCIMIENTO Y PRESENTACIÓN PERSONAL

Santafé de Bogotá D. C.

Ante M^{te} PABLO MENDEZ BARAJAS

NOTARIO SEXTO ENCARGADO DEL CÍRCULO DE SANTAFÉ DE BOGOTÁ.

Compareció(eron)

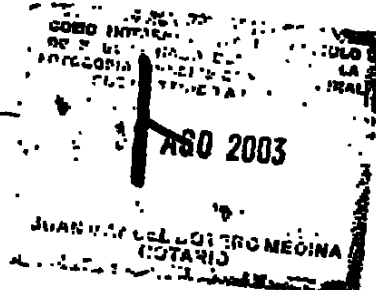
quien(es) exhibió(eron) la(s) C. C.

y la(s) Libret.(s) Militares)

domiciliado(s) en Santafé de Bogotá, y declaró(aron) que la(s) firma(s) que aparece(n) en el presente documento es (son) la(s) suya(s) y que el contenido del mismo es cierto.

Se constata se firma esta diligencia y se imprime huella dactilar.

[Firma manuscrita]



[Firma manuscrita]



10

SUPERINDUSTRIA Y COMERCIO
Radicacion : 03063229 00000000
Fecha (AMD): 2003-06-12 17:29:37
Tramite : 011 PCT-PATENT 379 FASE NACI 411 PRESENTAC
Dependencia: 2020 DIVISION DE NUEVAS CREACIONES

NIT : 800176889-2

RECIBO OFICIAL DE CAJA : 03 - 505522
FECHA : JULIO 21 DE 2003

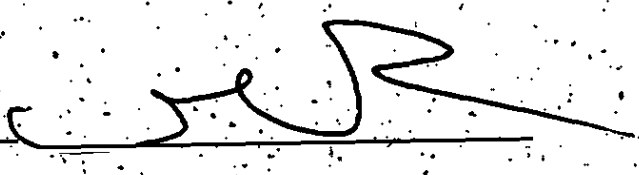
***** CONSIGNACION *****

DEBEITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
CAVELIER AGC/CDR	CONSIGNACION	BANCO POPULAR	050-00110-6	8573198	21/07/2003	33,071,420.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01 SOLICITUDES	7 TRAMITES DE SOL. DE DISEÑOS-INDUS	400,000.00
TOTAL :			400,000.00

SON: CUATROCIENTOS MIL PESOS

RESPONSABLE : 

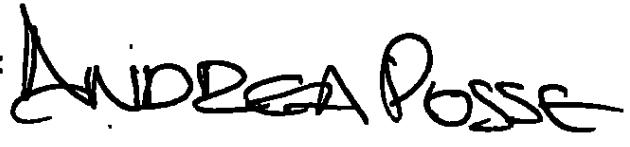
RECIBO DE CAJA APLICADO AL EXPEDIENTE No. _____

Colo 00573 - 041 - 009 - 0

SUPERINDUSTRIA Y COMERCIO
Radicación : 03063229 00000000
Fecha (RUB): 2002-06-12 17:29:37
Trámite : 011 PCT-PATENT 379 FASE INCI 411 PRESENTAC
Inventor: 2020 DIVISION DE NUEVAS CREACIONES

REQUISITOS NECESARIOS PARA PRESENTACION Y AGILIZACION DEL TRAMITE

	USUARIO	RADICADOR
PATENTE DE INVENCION ✓	()	()
- Indicación de que se solicita la concesión de una patente.	()	()
- Datos de identificación del solicitante o de la persona que se presenta la solicitud.	()	()
- Descripción de la invención.	()	()
- Dibujos de ser estos pertinentes.	()	()
- Comprobante de Pago de las tasas establecidas.	()	()
COMPLETA ()	INCOMPLETA ()	()
DISEÑO INDUSTRIAL ()		
- Indicación de que se solicita el registro de Diseño Industrial	()	()
- Datos de identificación del solicitante o de la persona que presenta la solicitud.	()	()
- Representación gráfica y fotográfica del Diseño Industrial o muestra del Material que incorpora el diseño.	()	()
- Comprobante de pago de las tasas establecidas	()	()
COMPLETA ()	INCOMPLETA ()	()
ESQUEMA DE TRAZADO ()		
- Indicación de que solicita el registro de un Esquema de trazado.	()	()
- Datos de identificación del solicitante o de la persona que presenta La solicitud.	()	()
- Representación gráfica del esquema de trazado	()	()
- Comprobante de pago de las tasas establecidas.	()	()
COMPLETA ()	INCOMPLETA ()	()

Firma Responsable: 

Fecha: