



US 20080076323A1

(19) **United States**(12) **Patent Application Publication**
Kondo(10) **Pub. No.: US 2008/0076323 A1**(43) **Pub. Date: Mar. 27, 2008**(54) **CONJURING TOOL****Publication Classification**(75) Inventor: **Hiroshi Kondo**, Tokyo (JP)(51) **Int. Cl.**
A63H 17/00 (2006.01)

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WASHINGTON, DC 20006**(52) **U.S. Cl.** **446/465**(57) **ABSTRACT**

The invention provides a conjuring tool which can be used as the magic implement for various magic tricks so that perform in more magical style, the conjuring tool is comprised of a traveling body having wheels which are pivotally attached to rotatable wheel shafts, a stopping device for stopping the rotation of the wheels when the traveling body run a prescribed distance is provided on the traveling body, wherein the stopping device has a gearwheel having a locking protrusion, a gearwheel for meshing the gearwheel having the locking protrusion and a wheel gear provided on the wheel shafts, and a locking part which can engage with the locking protrusion.

(73) Assignee: **TENYO CO., LTD**, Tokyo (JP)(21) Appl. No.: **11/853,807**(22) Filed: **Sep. 11, 2007**(30) **Foreign Application Priority Data**

Sep. 22, 2006 (JP) 2006-257916

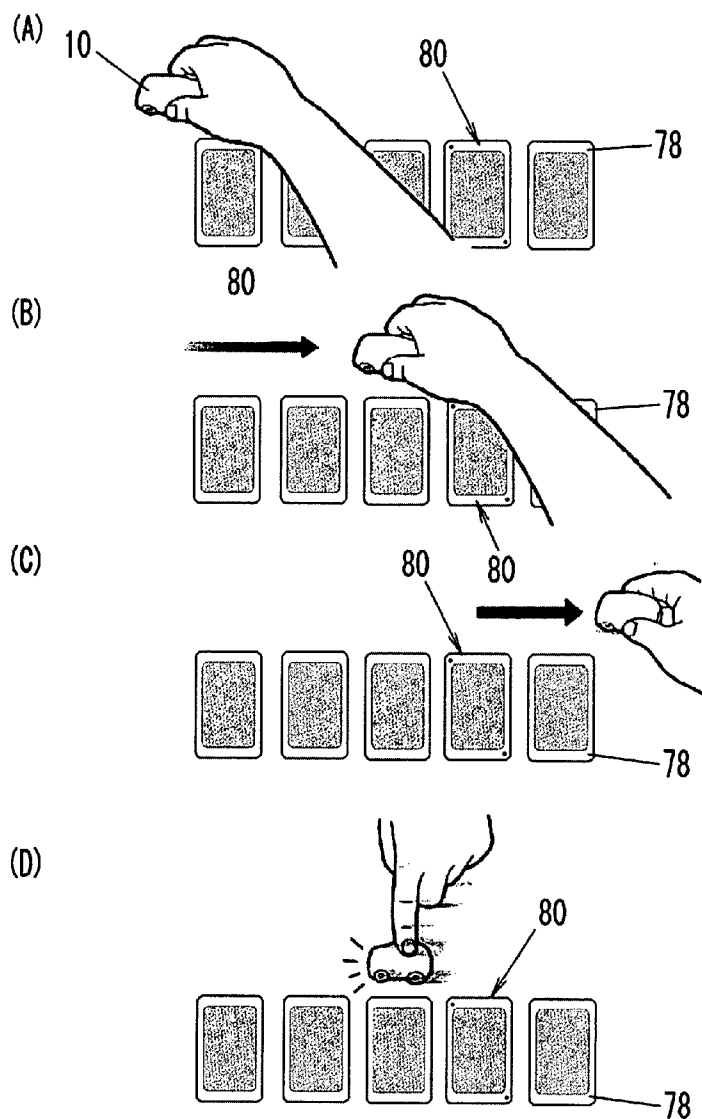


FIG. 1

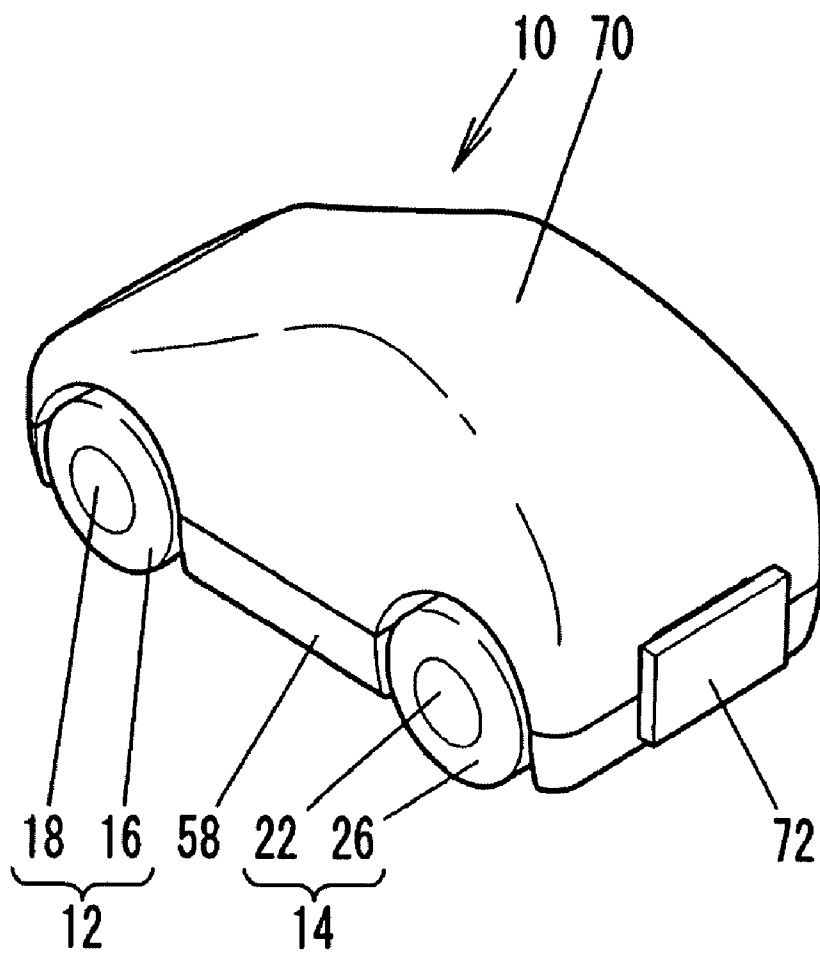


FIG. 2

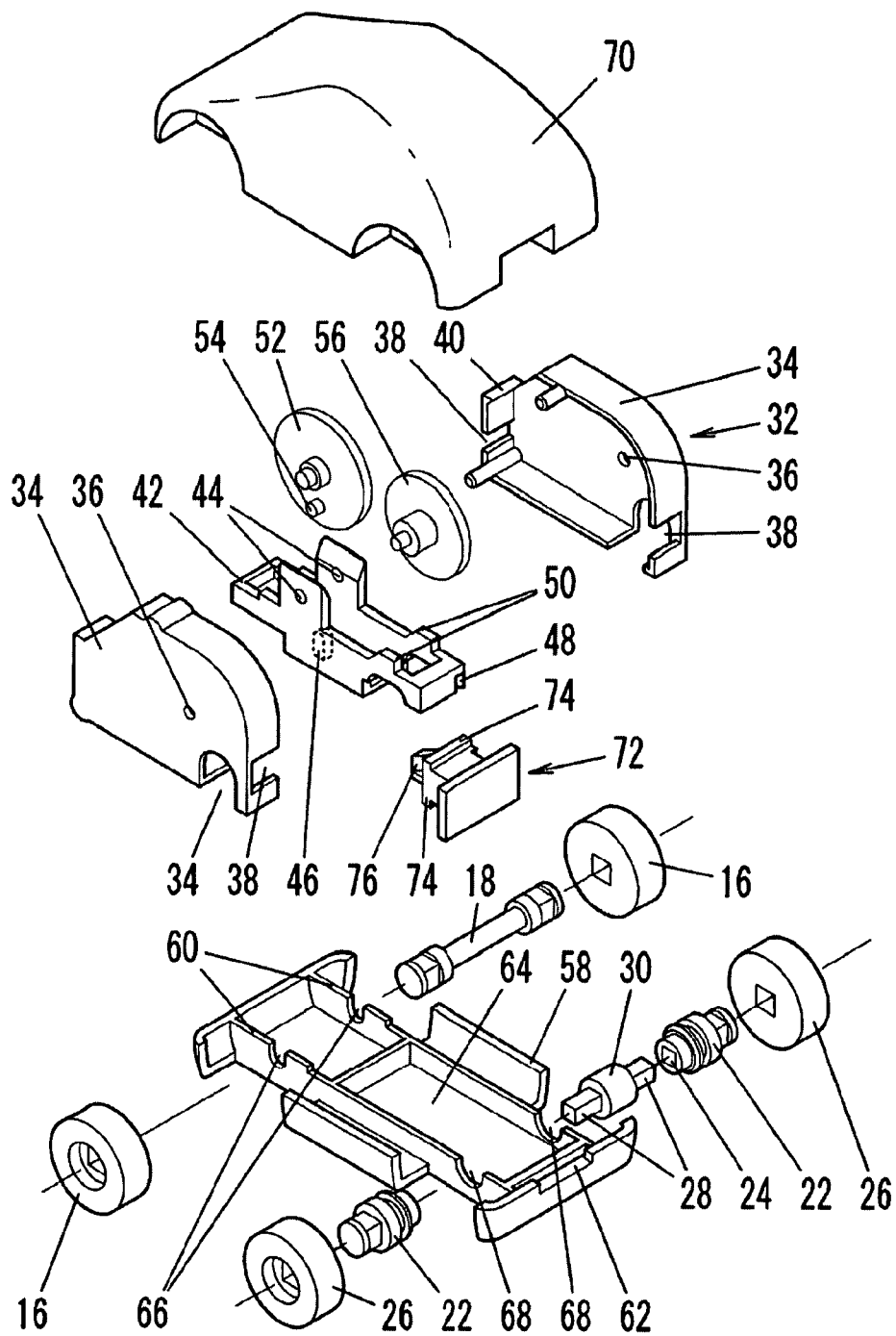


FIG. 3

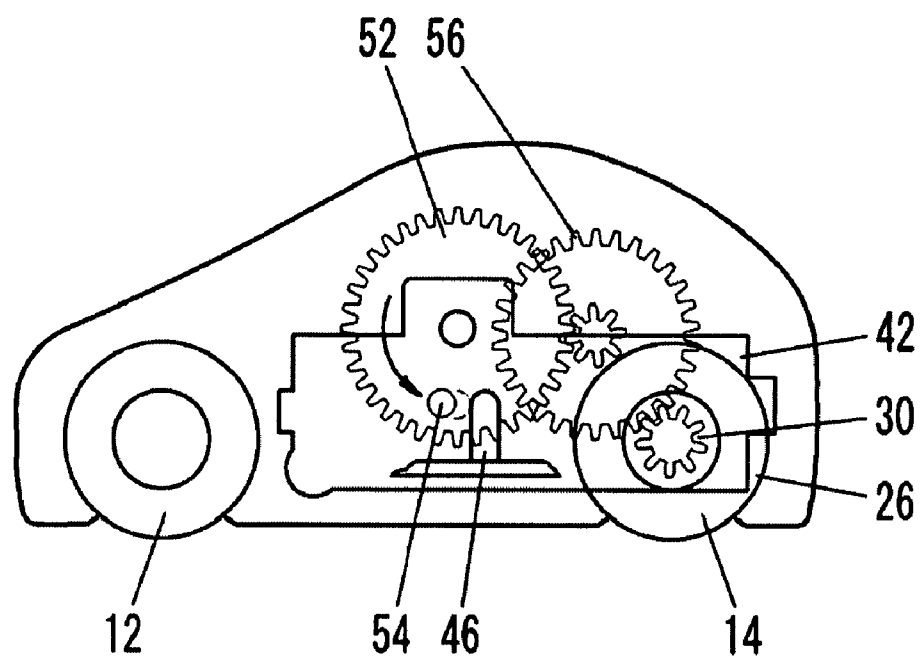
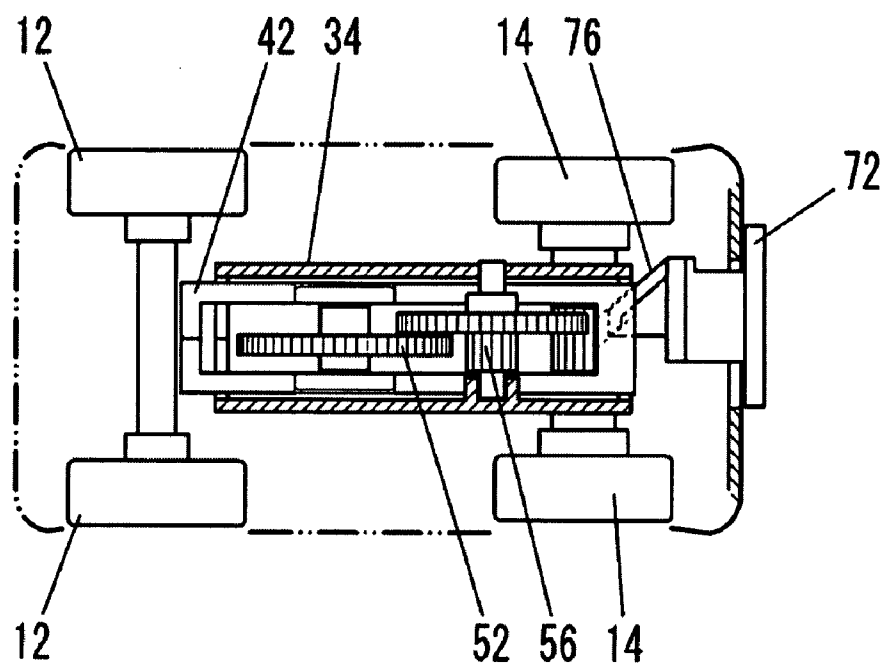


FIG. 4

(A)



(B)

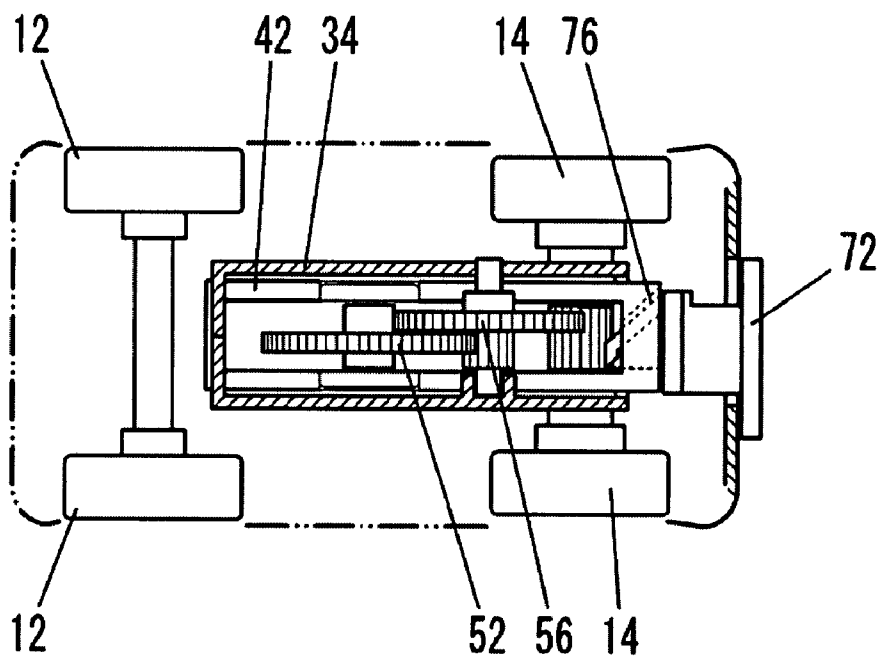
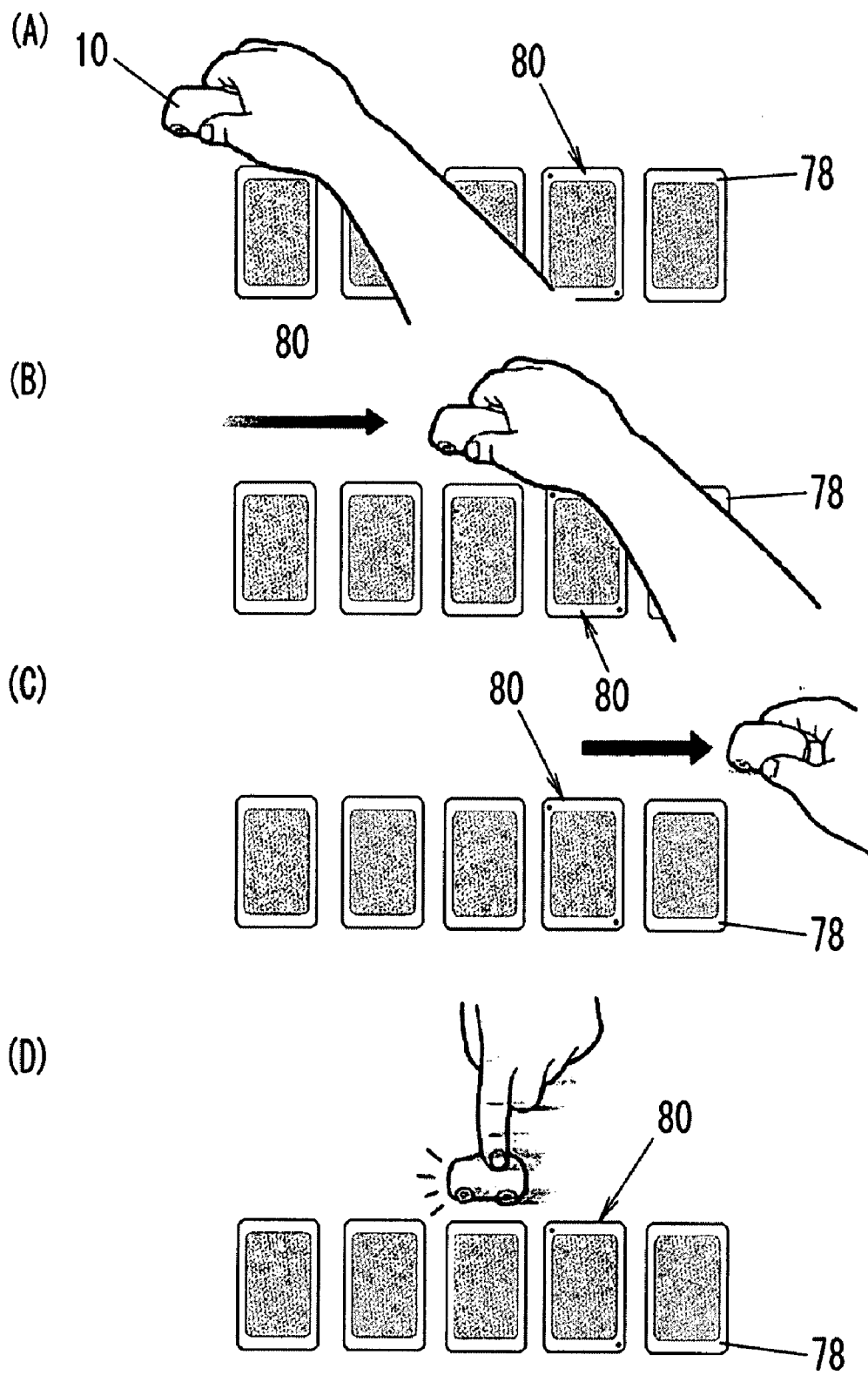


FIG. 5



CONJURING TOOL

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a conjuring tool that is used for magic tricks that guess what an audience chose.

[0003] 2. Description of Prior Art

[0004] Conventionally, magic tricks which guess what someone chose are popular. For example, a conjuring tool for guessing a right particular pellet of pellets is disclosed in Japanese Patent Publication No.2675772 "CONJURING TRICK FOR GUESSING RIGHT PELLETS" which the applicant has filed. This is the conjuring tool utilizing a magnet for performing the magic trick which guess the right particular pellet of the lot, comprised of a rotary indicator which has a magnet inside thereof and which is rotatable so as to indicate one pellet of pellets arranged around thereof, an opaque cover for covering the rotary indicator, and a rotary manipulation block which has a magnet inside thereof and which operates the rotary indicator to rotate and to stop by the action of magnetic force with the magnet of the rotary indicator. In this conjuring tool, after covering the rotary indicator with the opaque cover, the rotary indicator is rotated by the rotary manipulation block, the rotation of the rotary indicator is stopped by the rotary manipulation block, and then player targeted pellet of multiple pellets arranged around the rotary indicator is indicated.

SUMMARY OF THE INVENTION

[0005] The objective of the present invention is to provide a conjuring tool which enables to perform in a more magical style whereby that the conjuring tool guesses the right object which was chosen by an audience and which operation of the conjuring tool is done by the audience with ease.

[0006] The present invention relates to a conjuring tool comprising a traveling body having wheels which are pivotally attached to rotatable wheel shafts, wherein a stopping device for stopping the rotation of the wheels when the traveling body run a prescribed distance is provided on the traveling **10** body, wherein the stopping device has a gearwheel having a locking protrusion, a gearwheel for meshing the gearwheel having the locking protrusion and a wheel gear provided on the wheel shaft, and a locking part which can engage with the locking protrusion, where the rotation of the wheels is stopped by engaging the locking protrusion and the locking part when the gearwheel having the locking protrusion execute prescribed rotation.

[0007] Moreover, in the invention, the traveling body has a switch for disabling the function of the stopping device by moving the gearwheel having the locking protrusion so as to interdict the rotary transmission between the gearwheel having the locking protrusion and the wheel gear provided on the wheel shaft.

[0008] According to the invention, the traveling body can be stopped at the target position, therefore, a conjuring tool which can be used for various magic tricks that guess what an audience chose. Furthermore, the player can perform further wonder magic tricks by using this conjuring tool.

[0009] In addition, even the beginner can easily perform the magic trick that guesses the object item such as a card chosen by an audience by using the conjuring tool of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] FIG. **1** is a drawing showing an external appearance of a conjuring tool of the present invention and FIG. **2** is an exploded perspective view of a traveling body comprising of the conjuring tool of the invention. FIG. **3** is a side elevation view of a stopping device of the conjuring tool of the invention; FIG. **4** is a sectional view of the stopping device of the conjuring tool of the invention; and FIG. **5** is a drawing showing an example of use of the conjuring tool of the invention.

BEST MODE FOR CARRYING OUT THE INVENTION

[0011] A conjuring tool of the invention is comprised of a traveling body having wheels which are pivotally attached to rotatable wheel shafts, a stopping device for stopping the rotation of the wheels when the traveling body run a prescribed distance is provided on the traveling body, and the stopping device has a first gearwheel having a locking protrusion, a second gearwheel for meshing the first gearwheel and a wheel gear provided on the wheel shaft, and a locking part which stops the rotation of the first gearwheel by engaging with the locking protrusion of the first gearwheel. In addition, the conjuring tool has a switch for disabling the function of the stopping device which stops the rotation of wheels, the switch makes to move the first gearwheel so as to release the engagement condition between the first gearwheel and the second gearwheel whereby interdict the rotary transmission between the first gearwheel having the locking protrusion and the wheel gear provided on the wheel shaft so as to disable the function of the stopping device.

[0012] A preferred embodiment of the conjuring tool of the invention shall be explained below with reference to the drawings. Referring to FIG. **1**, a traveling body **10** as a conjuring tool is comprised of a front wheel part **12**, a rear wheel part **14**, a chassis **58**, a stopping device, a switch **72** and a cover **70**.

[0013] Referring to the exploded perspective view of the traveling body **10** of FIG. **2**, the component parts of the traveling body **10** shall be explained. The traveling body **10** of the embodiment has four wheels which constitute front wheels and rear wheels and is formed by imitating an image of a car.

[0014] The front wheel part **12** which forms the front wheels of the traveling body **10** is comprised of right and left front wheels **16** and a front wheel shaft **18**, the front wheel part **12** is rotatably axially supported in the front part of the chassis **58**. The front wheel shaft **18** is a thin rod body, and the front wheel tires **16** which are rubber rings are fit on both distal ends of the front wheel shaft **18**.

[0015] The rear wheel part **14** which forms the rear wheels of the traveling body **10** is comprised of right and left rear wheels **22**, right and left rear wheel tires **26** and a rear wheel shaft having a rear wheel gear **30**, the rear wheel part **14** is rotatably axially supported in the rear part of the chassis **58**. The rear wheels **22** of the rear wheel part **14** are formed in cylindrical, a square recessed part **24** which fits to a square

protrusion 28 formed on both ends of the rear wheel shaft is each formed on the side surfaces on the center side of the rear wheels 22. The rear wheel tires 26 which are rubber rings are fit onto the outer periphery of the right and left rear wheels 22 so as to increase a friction on a road. In addition, a rear wheel gear 30 which is engaged with a second gearwheel 56 is provided into a flange shape in the middle of the rear wheel shaft. Moreover, square protrusions 28 are formed in both ends of the rear wheel shaft and the square protrusions 28 are each fit to the square recessed part 24 formed in the rear wheels 22. Therefore, the rear wheels 22, the rear wheel shaft and the rear wheel gear 30 which compose the rear wheel part 14 rotate with rear wheel tires 26 by rotation of the rear wheel tires 26.

[0016] The chassis 58 for mounting the front wheel part 12 and the rear wheel part 14 is formed into a shape imitating an image of the lower part of the car. Two liner ribs 60 are formed in parallel to the longitudinal direction in the chassis 58. Front wheel receivers 66 and rear wheel receivers 68 which are U-shaped notches are formed in the front part of and in the rear part of the ribs 60 of the chassis 58 for supporting the front wheel part 12 and rear wheel part 14.

[0017] Moreover, a switch groove part 62 which is a groove in parallel to the sidewise direction of the chassis 58 is formed in the rearmost part of the chassis 58, a switch 72, which will be described later, is slidably inserted into the switch groove part 62. A stopping device recessed part 64 which is slightly larger than the bottom part of a stopping device 32, which will be described later, is formed near the switch groove part 62, the stopping device 32 for controlling the rotation of wheels is fit to the stopping device recessed part 64.

[0018] The switch 72 is formed in a rectangular parallelepiped shape, so as to form a flange part 74 which is protruded into the flange shape from the upper side and lower side, which make up both opposed sides, at the one surface of the rectangular parallelepiped shape. The flange part 74 is fit to the switch groove part 62 of the chassis 58 so that the switch 72 is freely slid in the sidewise direction of the chassis 58. Additionally, the side surface which is opposed to the flange part 74 of the switch 72 bulge the four surrounding sides as if formed by imitating a license plate of a car whereby the protruded part is protruded from the rearmost part of the chassis 58 when the switch 72 was fit to the switch groove part 62.

[0019] Moreover, a hook part 76 which is a rectangular thin plate is formed so as to bulge from the right side of the flange part 74 of the switch 72 so that the end part of the hook part 76 is inclined to the center of the flange part 74. This hook part 76 is engaged with a hook receiving part 48 of a slide base 42 of the stopping device 32.

[0020] The stopping device 32 is comprised of right and left base covers 34 and a slide base 42, a first gearwheel 52 and a second gearwheel 56 which are housed in the base covers 34. The slide base 42 of the stopping device 32 is formed into a short height tubular shape having a rectangular form in a plane view, and shaft holes 44 for supporting the first gearwheel 52 are formed in the front part of the both left and right side surfaces of the slide base 42. Furthermore, a protruding part 50 is each formed in the rear part of the both side surfaces of the slide base 42. In addition, a locking part 46 is formed on the inner surface of one of the side surfaces in which the shaft holes 44 are formed so as to protrude in a line shape, where a locking protrusion 54 can be locked to

stop the movement of the locking protrusion 54 of the first gearwheel 52 as described below. Furthermore, a hook receiving part 48, which is an inclined recessed part, is formed in the rear part of the slide base 42, which make up a side surface which a shaft hole 44 is not formed, so as to engage with the hook part 76 of the switch 72.

[0021] The base cover 34 is formed into an approximately rectangular parallelepiped shape, sliding openings 38 for penetrating the front end and rear end of slide base 42 are formed on the lower part of the front surface and rear surface of the base cover 34. The slide base 42 is housed in the base cover 34 so that the front part and the rear part of the slide base 42 can be each protruded from the sliding openings 38. The vertical and lateral movements of the slide base 42 are restricted by the sliding opening 38, therefore, the slide base 42 can move only in the front and rear directions. A latch 40 is formed in the inner surface of the front frame of the base cover 34 so as to triangularly protrude. Additionally, shaft holes 36 for supporting the second gearwheel 56 are formed at the slightly rear position of the right and left side surfaces of the base cover 34, and then the second gearwheel 56 is rotatably supported to the shaft holes 36. Moreover, U-shaped notches in which the rear wheel part 14 is positioned are formed in the lower rear side of the right and left side surfaces of the base cover 34.

[0022] The first gearwheel 52 is a spur gear and is rotatably supported to the shaft holes 44 of the slide base 42 so as to position within the slide base 42. In addition, a locking protrusion 54 is provided on the side surface of the first gearwheel 52, the rotation of the first gearwheel 52 is restricted by engaging the locking protrusion 54 with the locking part 46 which is provided on the inner surface of the slide base 42. The second gearwheel 56 is comprised of a large gear and a small gear and is positioned in the rear part of the base cover 34 with rotatably supported to shaft holes 36 of the base cover 34. Then, the large gear of the second gearwheel 56 is meshed with a rear wheel gear 30 and the small gear of the second gearwheel 56 is able to mesh with the first gearwheel 52, as shown in FIG. 3. Therefore, the second gearwheel 56 is a reduction gear which meshes with the rear wheel gear 30 provided on the rear wheel shaft and the first gearwheel 52 having the locking protrusion 54.

[0023] The cover 70 of the traveling body 10 is formed by imitating an image of the upper part of a car. The cover 70 covers over the chassis 58 which is formed by imitating an image of the lower part of the car.

[0024] Next, the example of the operation of the switch 72 is explained with reference to FIG. 4. FIG. 4A shows the switch 72 is slid to the right side of the chassis 58. FIG. 4B shows the switch 72 is slid to the left side of the chassis 58.

[0025] When the switch 72 is slid to the left side of the chassis 58 as shown in FIG. 4B, the slide base 42 which is engaged with the hook part 76 of the switch 72 is moved to rearward with the inclination of the hook part 76, and then the first gearwheel 52 which is supported to the slide base 42 is meshed with the small gear of the second gearwheel 56 which is supported to the base cover 34. Therefore, as shown in FIG. 3, the first gearwheel 52 rotates at a reduced rotation speed via the second gearwheel 56 by the rotation of the rear wheel part 14, and when the rear wheel part 14 rotates at a prescribed rotation, the locking protrusion 54 which is provided on the first gearwheel 52 and the locking part 46 which is provided on the slide base 42 touch each other so as to deter the rotation of the first gearwheel 52, and then the

rotation of the rear wheel part 14 is stopped. So, when the rear wheel part 14 of the traveling body 10 rotates at the prescribed rotation, that is to say when the traveling body 10 drives at the prescribed distance, the locking protrusion 54 and the locking part 46 touch each other, and then the traveling body 10 stops.

[0026] When the switch 72 is slid to the right side of the chassis 58 as shown in FIG. 4A, the slide base 42 which is engaged with the hook part 76 of the switch 72 is moved to frontward with the inclination of the hook part 76. Then, the first gearwheel 52 which is supported to the slide base 42 is meshed with the latch 40 which is provided in the front part of the base cover 34, and the first gearwheel 52 is out of rotate and the meshing of the first gearwheel 52 with the small gear of the second gearwheel 56 is released. So, the meshing of the first gearwheel 52 and the second gearwheel 56 is released by frontward moving of the slide base 42 which supports the first gearwheel 52, and then the function that stops the rotation of the rear wheel shaft is disabled by the stopping device 32. Therefore, by sliding the switch 72 to the right side and by disabling the function of the stopping device 32, the traveling body 10 can be run without stopping.

[0027] Also, it is acceptable that, for example, the first gearwheel 52 and the second gearwheel 56 are supported to the slide base 42. In this way, by sliding the switch 72 from side to side so as to slide the slide base 42 from front to back, the meshing state of the rear wheel gear 30 of the rear wheel part 14 and the large gear of the second gearwheel 56 may be released so that the rotation of the rear wheel gear 30 of the rear wheel shaft is not transmitted to the first gearwheel 52 having locking protrusion.

[0028] Furthermore, to ensure a steady operation of the switch 72, it is acceptable to form a notch (not shown) on the side surface of the slide base 42 or on the switch groove part 62 so as to make the switch 72 to be engaged with either right or left side, or so as to make the slide base 42 to be engaged with the base cover 34 at either front or back position of the traveling body 10.

[0029] Then, one example of how the traveling body 10 as the conjuring tool is used shall be explained. The outline of this magic trick is that the right card of multiple cards, which is chosen by an audience, is guessed.

[0030] Cards such as a deck of playing cards are used for performing the magic trick. A mark such as a dot is drawn at the upper left corner and the under right corner of the back side of one card so that the player can quickly distinguish.

[0031] Before performing, the switch 72 of the traveling body 10 is slid to the left side so that the first gearwheel 52 and the second gearwheel 56 of the stopping device 32 are meshed each other, and the locking protrusion 54 and the locking part 46 of the stopping device 32 of the traveling body 10 are touched and engaged each other so that the traveling body 10 is not possible to move forward.

[0032] Next, the procedure of the magic trick is described below. Firstly, the cards are stacked so that the front surfaces thereof are reversed and a specific card which the player can distinguish is positioned at the bottom of the stacked cards. The player spreads the cards with the front surfaces reversed and asks an audience to choose one card and to memorize its drawing pattern. Then, the player stacks cards again and puts back the card chosen by the audience on the top of the stacked cards. After this, the player separates the cards at its midpoint in two parts so as to make the upper and lower part,

and reshuffle the upper and lower part upside down. By doing this, the card chosen by the audience is positioned directly below the specific card.

[0033] Secondly, the player spreads the cards by placing each card 78 at even intervals so as to have the specific card 80 viewable. Then, the card chosen by the audience is at the very left to the specific card 80. As shown in FIG. 5A, the player puts the traveling body 10 at the upper left position of spread cards. After this, as shown in FIG. 5B, the player moves the traveling body 10 to the right direction without rotating the wheels by holding up itself about one centimeter and puts the traveling body 10 in front of the card chosen by the audience which is disposed at the left of the specific card 80 so that wheels of the traveling body 10 are touched to the table. On keeping the touching state of the traveling body 10 on the table, as shown in FIG. 5C, the player drives the traveling body 10 backward towards the upper right direction of spread cards. Then, the engagement of the locking protrusion 54 and the locking part 46 of the stopping device 32 of the traveling body 10 is released, the first gearwheel 52 rotates inversely which corresponds to the backward driven distance of the traveling body 10 from the position of the card chosen by the audience.

[0034] And then, as shown in FIG. 5D, the player asks the audience to move the traveling body 10 forward by pushing the traveling body 10 with his/her finger. Since the traveling body 10 is driven forward by forwardly rotating the first gearwheel 52 which corresponds to the backward driven distance as described earlier, the traveling body 10 stops in front of the card chosen by the audience which is disposed at the left of the specific card 80. Thereafter, the player reverses the card disposed in front of the stopped traveling body 10 and asks the audience to confirm that the card is the one that he/she has chosen. At this moment, the player holds up the traveling body 10, slides the switch 72 of the traveling body 10 to the right direction without being seen by the audience and puts back the traveling body 10 on the table. Since the transmission of rotation from the rear wheel gear 30 to the first gearwheel 52 of the stopping device 32 is blocked, the player can show that the traveling body 10 has no gimmicks or tricks even driving the traveling body 10 after performing.

[0035] Thus, the audience has a wonder experience that the traveling body 10 which seems to be a simple traveling toy stops in front of the card chosen by himself/herself as if it has known what the card was.

[0036] As described above, the conjuring tool which can be used as the magic implement for various magic tricks so that perform more magical style can be provided. The present invention was described with reference to the preferable embodiment, however it is to be understood that the invention intended to be not limited to the embodiment and various may be made with in the scope of the invention.

What is claimed is:

1. A conjuring tool comprising a traveling body having wheels which are pivotally attached to rotatable wheel shafts, wherein a stopping device for stopping the rotation of the wheels when the traveling body run a prescribed distance is provided on the traveling body,

wherein the stopping device is comprised of a gearwheel having a locking protrusion, a gearwheel for meshing the gearwheel having the locking protrusion and a wheel gear provided on the wheel shaft, and a locking part which can engage with the locking protrusion,

where the rotation of the wheels is stopped by engaging the locking protrusion and the locking part when the gearwheel having the locking protrusion execute prescribed rotation.

2. The conjuring tool of claim 1, wherein the traveling body has a switch for disabling the function of the stopping

device by moving the gearwheel having the locking protrusion so as to interdict the rotary transmission between the gearwheel having the locking protrusion and the wheel gear provided on the wheel shaft.

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