

The design of children's interesting seat

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Abstract: With the improvement of people's living standard, more and more modern parents are care for their children, and many families will buy special seats for children. But currently market of children's chair mostly belongs to the adults smaller version of the chair, not on the physical characteristics and psychological needs of children, so children cannot meet the special demand for the seat. This topic "little worm" children's interesting seats from the perspective of children, taking "caterpillar" as a bionic object, in the seat above the basic function of "sit", combined with the child's life and entertainment, for their designs a seat products, rich in interesting for children to build a completely relaxed and free game niche of body and mind, to make it healthy and happy growth.

I. Market research and analysis of children's fun seats.

1. The characteristics of the existing children's toys on the market of Children's fun seat market overview.

Children's fun seats on the physiological and psychological characteristics of children as the center, games, interactive and practical functions in one of the seat design, to let the children in the process of using the seat be happy feelings, create a relaxed environment. Although has children furniture zone in each big furniture market, but its selling children's seat is generally not for children to carry on the design and manufacture of specialized, fusion of interesting elements seat little children, mostly on the basis of adult seat narrow size, simple coated with too much colorful appearance, even directly rough picture on TV cartoon image of the commonplace. The model is borrowed from each other and copied, resulting in a very high appearance of children's seats in the market.

2.3-6 characteristics of children.

Age 3-6 is a critical period for the rapid development of children and is also the most active period of behavioral activities. Curiosity about the outside world is also the peak period of creativity and imagination, which requires a large space to exert their unrestrained thoughts. Seats for them more like to use as a toy, so entertaining and should be considered on seat design freedom, can use bright color, on colour can let children feel very cordial, give them full of tong qu imaginary space.

II. Research summary and design positioning.

1. Research summary

According to the research situation, according to the children at the age of 3 to 6 is the most lively character behavior, and also the need of interesting products to meet their fun nature, so they can mainly aimed at this group of specialized design and production. While parents are buying child seats for their children, the emphasis is on the environmental protection of the seat materials, as well as the comfort and safety of the seats.

2. design positioning

(1).age

As the target population ages 3 to 6 years old preschool stage, because kids this age are the most active and lively, no trouble carefree. With great curiosity in all things, need a lot more fun and interesting things find their innovative thinking ability.

(2).modelling

Adopt bionic design method, combine the element of animal to design, make the appearance looks more lovely. At the same time, the shape should avoid the appearance of sharp corners, the seat surface should be rounded, lest children stumble or cause bumps.

(3)Function

In addition to the seat that "sit" on the basis of function, and then added some fun fun elements, have a good interaction between children and seat, make children more happy to see the chair as a fun toy.

(4)Color

Consider the use of bright colors, which can cause children's attention and curiosity.

(5)Material

Choose to use green wood, wood is commonly used traditional material, it is the most common in market, also be the kind of furniture material that is favored by consumer most. At the same time, because 3 to 6 years old is the important stage of life development, harmful materials can affect the normal development of children, wood is relatively green.

III. The design of process

1. Design inspiration

Children's nature and active, poor concentration, it is difficult to secure sat on the stool, so I decided to take the seat designed to free product, can run around on a stool, let children can no longer constrained by rigid seat. The look and feel of the most children's favorite bionic device is designed to make the seats more enjoyable for children, both in appearance and in fun.

The original idea of the scheme was to simulate the shape of the train and the form of the train carriage connecting to each other, as shown in figure 1. Based on the small bench, two of the stool legs and the wheel structure, the other two keep the original structure to ensure the stability of the bench. Scheme needs at least two different structure of the bench, need a respectively as the head of the structure of the bench and a as the tail of the structure of the bench, including the head of the structure of the bench number only need one, and the tail of the structure of the bench number can be unlimited. If the head bench is a locomotive, the rear bench is the fire compartment, which can be connected to several, forming a long string.



Fig. 1 train

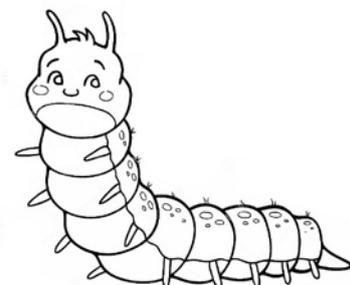


Fig. 2 carpenterworm

Due to the train plan can not solve the structural problem, so in retaining structure core: "drawing", "combination" and "taxi" under the premise of the appearance of the bionic object replaced provoke more children like to caterpillar image, as shown in figure 2. The body of a caterpillar is a section, and

the appearance of multiple stools is also one section, so the author thinks that this image is more suitable for the scheme.

2. Renderings show

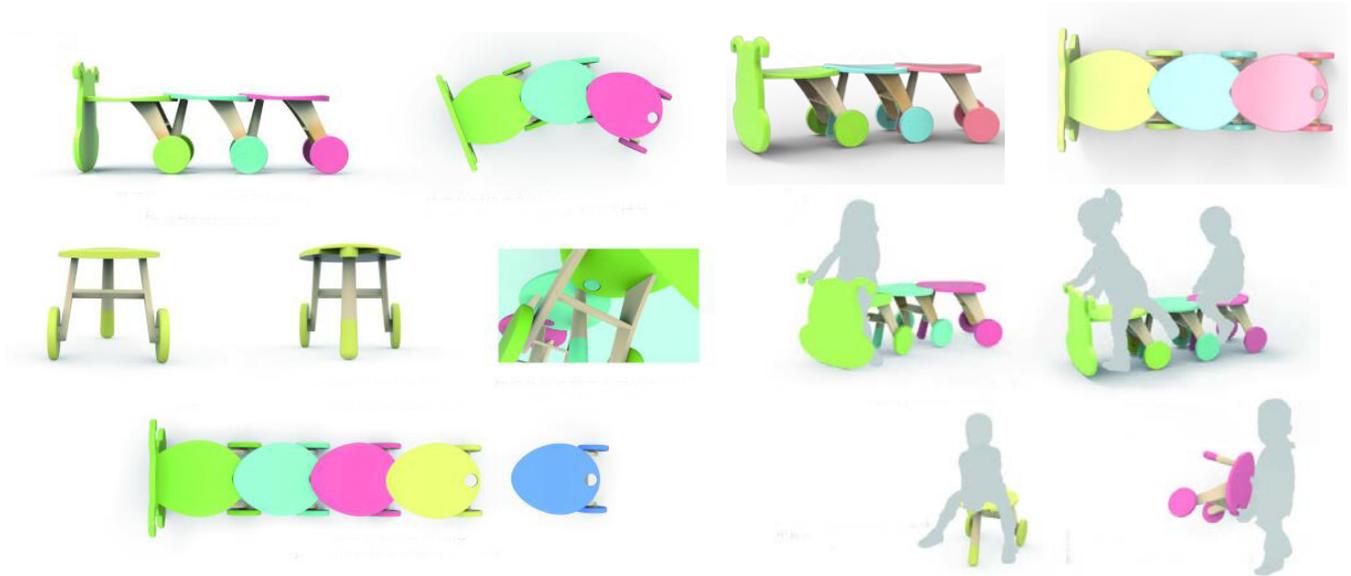


Fig. 3 rendering

IV. Analysis on the design of children's funny seats.

Children's interesting seat can help children to create a relaxed and happy growing environment, "little worm" children's tastes seat using biomimetic methods to design, using the combination separation way to realize the interaction between children and seat products, achieve interest gaming experience, draw lessons from the structure of the train form is really stand in the perspective of children experience design and production. It allows children to be freed from the monotony of functional seats and give them real free entertainment.

1. Design inspiratio

The appearance of the chair USES a bionic technique to prototype the caterpillar. The image contour of the Chinese caterpillar is simplified and refined, and it is finally designed with the cute and interesting "little bug" children's funny seat.

2. Interesting analysis.

Interest is the core of this chair. The seat can be combined to connect multiple seats together, gliding forward and forward by lifting the front face, which is shaped like a caterpillar moving forward. And not only can you play alone, but you can also carry other children on the stool behind the little bug. In a family gathering or adults gathered together to talk about things, don't have to be involved in the children can play alone or together with the junior partner in a side, immersed in their own little world.

3. Color analysis

The color of the "little bug" is colorful. Because of the particularity of the structure, several benches can be connected together, so there is no limitation on the color selection, and the main choice is bright colors. But try to avoid the color with too high purity, because the color with too high purity is stimulant, the mood that is not too stable to the child has influence, affect the body and mind of the child thereby.

4. Man-machine analysis

The height of the seat is determined according to the average height of children aged 3-6, and the height is 25cm, as shown in fig4. This height is relatively comfortable for children with height of

95cm-112cm. The outer outline of the seat is elliptical, with no protruding edges and corners, and the rounded corners can prevent the children from being damaged during the use. Seat plane is concave on the curved surface, this design not only can eliminate the gradient of the stool connection when, still can make the seat surface more children's hip joint, as shown in figure 4, added more comfort.



Fig. 4 Size diagram

5. Structural analysis

"Small insect" head seat structure display diagram, as shown in figure 5. The tentacles of the head can be used as handrails to keep the balance; The trapezoidal structure support of the rear wheel can disperse the weight on the stool; The seat face and head can be used to increase the stability and durability of the seat. The back wheels that can be rolled are the fun core of the "little bug" seat.

The rear seat shows the chair face radians can bring more comfort to the seat. The stool joint is the most important structure of the "little worm" children's fun seat. The cylinder at the bottom of the stool is put into the hole of the front seat, and the connection between the stool can be completed, as shown in figure 5.



Fig.5 Structural diagram

V. Conclusions

With the development of era, the market is similar to the "little worm" children's fun seat so the seat specially designed for children and the product will be more and more, there will be more and more parents begin to choose these interesting for children, lovely, fun fun seats.

The author used in the entire design process imitation naturally and split on children's interest in the form of combination seat design, on the physiological characteristics and psychological characteristics of children, with lovely caterpillar image design, awareness of child seat main usage scenario is indoor, at the same time considering the one-child family and the family in the case of multiple children, designed the new as well as single play interesting seat can be more than entertainment. The image of a cute caterpillar can give the child a sense of intimacy, and the way the

stool is connected is the same as the chubby body of a caterpillar. This kind of appearance and the form of the game meet the psychological needs of the children group, can create an unrestrained growth environment for the children.

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