

Science and Technology Application in the Field of Rolling Paper Art

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Abstract. Rolling paper is a form of paper art. The charm of it comes from the characteristic of the paper. The paper is rich in color. The hardness of the paper can make it be made three-dimensional shape. Rolling paper art have been paid more attention in recent years in china. It seems new and shows the beautiful in many ways, and it has the advantage of sculpture and painting. Rolling paper art is popular with the masses because of its unique in the field of art. That is a pity that it demands a lot of manpower and time to complete just one painting for people. This limits the large-scale promotion of rolling paper art painting. In order to solve this problem, this paper introduces a kind of science and technology application example in the field of rolling paper art. It can effectively solve the problem of rolling paper production and is beneficial to the development and promotion of rolling paper art.

The Overview of Rolling Paper Art

Rolling paper is a form of paper art. The charm of it comes from the characteristic of the paper [1]. The paper is rich in color. The hardness of the paper can make it be made three-dimensional shape. Rolling paper art have been paid more attention in recent years in china [2].

Rolling paper is a kind of art form using paper to expresses art. It is a very ancient art and craft. Many data shows that rolling paper originated in ancient Egypt [3]. The alternative view is that the modern rolling paper art comes from Europe. The prototype is the paper crafts that were made by European Church nun. The paper crafts used to decorate the reliquary and painting of God. After a long period, its form was changed from a single handmade into various forms of art. In recent years, rolling paper has been developing rapidly. Many colleges have launched courses in the direction of rolling paper. Under the divergent thinking of students, there are more creative works. These works are complicated, with high artistic value [4].

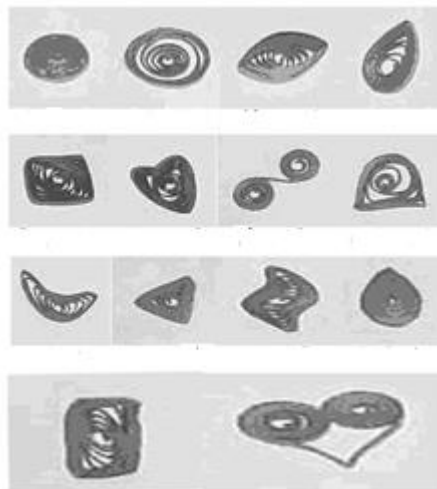


Fig. 1 The basic types of rolling paper painting

Rolling paper is a form of paper art. The charm of it comes from the characteristic of the paper. The paper is rich in color. The hardness of the paper can be made three-dimensional shape. The

making process of rolling paper is as follows. Step 1: you should make the color paper into strips that with the width of 0.5-2cm and the length of 5-80cm. Step 2: you roll up the strip of paper as a circle by special tools. Usually, we use simple tools or make it by hand. Step 3: you put these paper circles into any shape and size you need. The available based forms of rolling paper are variety, as shown in figure 1. Step 4: you paste the rolling paper on a board according to your design. Now, you get the rolling paper work that created by yourself. There are complete works of rolling paper in figure 2 [5].

We can see that the types of rolling paper can be compact volume, free volume liking diamond, teardrop, square, heart, semi-circle, new moon, a triangle and so on. We can use their front or side according with our requirements [6].



Fig. 2 The rolling paper art painting

The Advantages of Rolling Paper Art

As shown in figure 2, a rolling paper painting contains a large number of paper rolls with many different colored sections. Taken together, it has the following characteristics.

First, rolling paper art is easy to learn. It is same as handmade in our childhood. Any people can learn it according to the steps aforementioned. Even beginners can complete a simple rolling paper painting in a short time. This is a happy thing for everyone. So rolling paper art became increasingly popular [7].

Second, rolling paper art has its unique charm. It has the advantages of sculpture and painting. Its rich color like painting. Its stereoscopic effect is same as sculpture.

Third, rolling paper art can be used in many fields such as home furnishing decoration and the art market.

The Development Bottleneck of Rolling Paper Art

As mentioned before, a rolling paper painting contains a large number of different sizes paper rolls. These rolls are usually made by hand. It needs a lot of time and manpower [8]. Rolling the paper roll is a simple repetitive work, so people who do that cannot work for a long time. If you want to just make a small size painting, you should pay a lot of time to roll paper rolls. How to roll paper rolls quickly became a big problem. This limits rolling paper art's development.

Science and Technology Application in the Field of Rolling Paper Art

Throughout the history development, the using of technology can improve the productivity, whether

in manufacturing or services. Using technology can promote the rapid development of the industry. It just meets the requirement of the rolling paper art's development. The rolling paper art's production urgent needs modern technology tools. It can solve the problem that the development bottleneck of rolling paper art.

In order to solve the above problems, this paper introduces a kind of machine that can be used to roll paper rolls. This machine consists of the following four parts: a piece of circuit board, a small motor, the positive and negative pole lines and control switch. We name it rolling paper machine. It can replace people to work. That is to say, it is using science and technology instead of human.

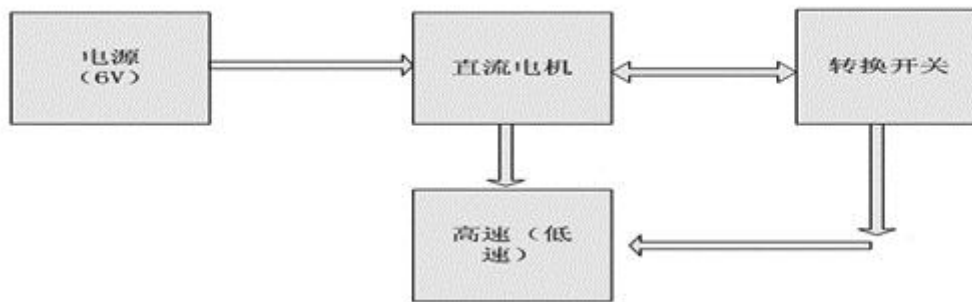


Fig. 3 The design diagram of rolling paper machine

The Structure of Rolling Paper Machine

As shown in figure 3, the rolling paper machine has simple structure, and it is easy to operate. It consists of six parts. As shown in the figure 4, part one is the base that is used to ensure the stability of the machine. Part two is the small motor which provides the power of the machine. Part three is the machine connection part. Part four and part five are baffles, and it is used to ensure that the paper roll is flat and level. Part six is a fine needle.

There is a gap in the middle of the needle. It is used to fix the top of the paper. As shown in the figure 4 and figure 5, there is a hole in the middle of part five's baffle. Part six's needle can through the hole. When you use the machine, you put the small piece of paper through part six's gap between part 4 and part five. Then turn on the motor, the small piece of paper roll into a paper roll. After get out part 5, you can get the paper roll out of the machine. This is the whole process of rolling paper machine's work.

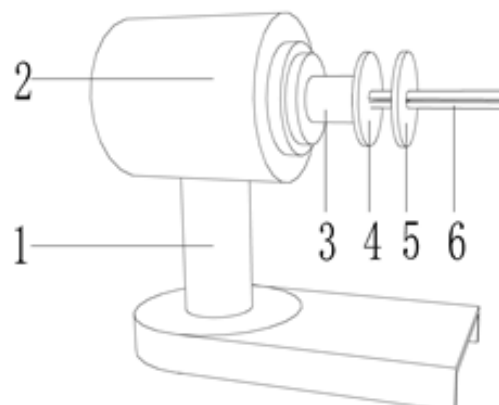


Fig. 4 The rolling paper machine

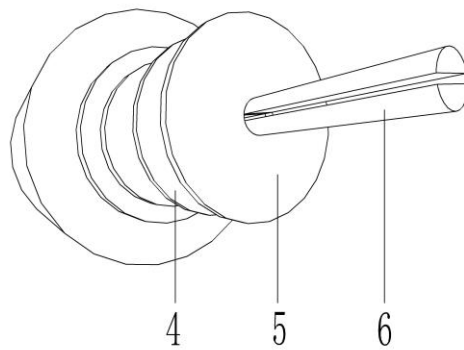


Fig. 5 The details of rolling paper machine

The Beneficial Effect of Rolling Paper Machine

It is obviously that the machine's speed is faster than manual. This makes it possible to make a big rolling paper painting. And it also reduces the time to do this work. In other words, you can see your work in a short time. This is good news for beginners. In addition, using machine to work has many other advantages. For example, the paper rolls that be rolled by machine are tight and uniform. These paper rolls have better gloss, and make the roll paper painting bright. This will make many people joining in the rolling paper art's production [9].

Summary

In summary, the rolling paper machine in this paper can really help the rolling paper art's production. This is the first combination of technology and art in the field of rolling paper art. It has significance in two aspects [10]. One is that it can save manpower and makes it possible to produce a large number of rolling paper art's paintings. The other is that it is worth to study whether in art or in the field of science and technology. So the rolling paper machine has a great market prospect.

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