

DEVORE & RAYNOLDS CO., Inc.
Cor. Fulton & William Sts.

No.

New York February 5, 1923

Mr.

Dear Sir:--Our No.

was written

to care

since which we

have your No.

with orders as stated.

It has been Devore's policy to always make the best brushes possible and we have employed makers who have had years of experience in that trade and are capable of making Devore quality brushes. Quality does not mean only the material used in the brushes, but also their skilful and expert construction, and Devore brushes are sold on the merit of their quality.

Therefore, the name Devore when seen on brushes means the mark "STERLING" of the Brush Industry. In order that our salesmen may better understand what the mark "STERLING" means in brushes, we shall take up the different kinds of raw material used in the construction and show the actual process of construction of an average Devore Brush.

CHINA BRISTLE

The majority of our brushes are composed of China Bristle, and as the name indicates are obtained from the Chinese hog, and are collected principally in the northern part of China. Tientsin is the principal point of export.

There are two grades of China Bristle. One we will consider as the soft hair and coming from the northern part of China, known as Tientsin Bristle. The other grade, or stiff hair, is collected and dressed in the southern part of China and is known as Kankow.

PREPARATION OF CHINESE BRISTLE FOR THE BRUSH

The first process we give Chinese Bristle is to untie the original packages and the string from the original bundle and take two bundles, one the reverse of the other, and tie them securely together. Then we place them in large boiling baskets and they are boiled in steam kettles for three hours, which sterilizes the bristle, thereby eliminating whatever dirt they might have collected. This process also straightens the bristle. By doing this we are able to put into our brushes bristles that will not finger or twist when placed in paint or any liquid. This boiling process adds about 15% to the value of the bristle as we buy it. If we could use the

which gives the real value to the brush.

BRUSHES SET IN RUBBER

When the maker has formed the bristle in the ferrule, he then places the top of flag end of the brush in a flaxseed solution to a depth of about 3", which holds the bristle in place while a setting of rubber is put on the butt or skin end.

These brushes are then set in a shallow perforated pan which contains a rubber solution. The rubber is permitted to run up the bristle to the height of $3/8$ " or $1/2$ ". This solution will run up the bristle because it is conical in shape. The larger end of the bristle being in the rubber, therefore the capillary attraction draws the rubber solution upward. The brushes are then set on wire trays and the solvent dried out. This process takes about three days in a naturally ventilated closet. When the solvent has evaporated from the rubber, the brushes are then pulled down to their final position in the ferrule and are vulcanized on steam tables at a temperature of 350c Fahrenheit. This vulcanizing process takes about six hours. They are now ready to be nailed. The nailing is done by a machine especially built for this work. The nails are about $1/4$ " apart in the Cement-set Brush, while in the Set-in-rubber Brush, only one to three nails are necessary.

SET-IN-CEMENT BRUSHES

These brushes are put in position by the brush maker and cement poured in the back which is blown down by compressed air to the depth of about $1/2$ ". The brushes are then permitted to dry for 24 hours, and then nailed to hold the setting securely in the ferrule..

BRUSHES-SET-IN-GLUE

This process is the same as used in setting a brush in rubber except that the hot glue is rubbed into the butt end of the bristle and immediately pulled down into the final position by the gluer, and is nailed by the same method as a brush set in cement.

FINISHING THE BRUSH

When the bristles have been nailed fast, the brush is ready for the handle, which is driven into the ferrule and securely nailed. It is then taken and placed on what is called a bristle expelling-machine, which is nothing but a fast revolving wheel which holds the brushes securely and rubs them against heads, thereby expelling all loose bristles. The brush is then polished on a cylinder brush wheel which eliminates what dirt it may have accumulated in the process of manufacture. The brush is now ready for identification marks, and the final trimming and boxing.

There are several known adulterants that are used to cheapen brushes. The one that is most popular is Horse Hair, which is used quite extensively. It is rather hard to detect by one who is not accustomed to handling brushes, but with a little care in the examination of a brush you will see that the Horse Hair is flimsy and will not stand upright like a good bristle. It can sometimes be detected by looking at the top of the brush, when you will see its square ends. Another way to distinguish it is to pull out a hair you think is Horse Hair and see if its shape is cylindrical. Always remember that a bristle is conical in shape, and if you take a bristle and rub it between your thumb and first finger it will move away from you to the flag end of the bristle, while the Horse Hair if manipulated in the same way will remain stationary.

In a cheap Kalsomine Brush, Tapico or Sisal is used. This is a vegetable growth and can easily be detected because of its harshness. It is dyed in several colors to conform with the bristle it is intended to cheapen.

The use of raw bristle is also quite popular in adulterating the Wall Brush. If you will remember, as we told you in the first part of this article, we boil our bristle to straighten and clean it. This is done at a cost of 15%. When raw bristle is used to any extent in the manufacture of Wall Brushes, the brush will finger and twist when placed in water. The best way to detect raw bristle when one's eye is not accustomed to detect it, is to immerse the brush in water and then shake the bulk of the water out and permit the brush to dry; a brush containing raw bristle will spread like a feather duster, while a brush that is made of all boiled bristle, as our brushes are, will remain close together.

FEATURES OF DIFFERENT SETTINGS

- SET-IN-RUBBER -- Can be used in all liquids.
- SET-IN-GLUE ----- Stands alcohol and alcohol varnish, but will not stand water.
- SET-IN-CEMENT --- Will stand water or oil, but not alcohol.
- SET-IN-PITCH ---- Not affected by water, but cannot be used in alcohol or alcoholic varnish.

RUSSIAN BRISTLE

Russian bristle comes principally from Siberia and other cold parts of Russia. These bristles are used for Kalsomine Structural and Stucco Brushes, and in other brushes in which hard use is required. The bristles being stiffer and heavier than Chinese bristle, will, therefore, wear approximately twice as long and will keep forming a new flag until brush is three-quarters used. Bristles come in White, Yellow, Gray and Black.

FRENCH BRISTLE

This bristle is prepared and dressed in France by a secret process. Being of a soft silk texture, it is used principally in the manufacture of fine artists' brushes and high grade varnish brushes. The flax of this bristle is similar to the Chinese, but softer than either the Chinese or the Russia bristle. It comes in three colors commercially known as Beau Blanc, Blanc, and Demi-Blanc; the Blanc and Demi-Blanc being on the yellow shade.

OX HAIR

Ox Hair is a shortened trade name, as it should be called Ox Ear Hair, as all the hair is obtained from the ear of cattle. It is very resilient and stands up beautifully in the brush, and bears up well under wear and tear. You will find it has quite a ready sale for both the Color and Flowing Ox Hair Brushes among the automobile manufacturers. The bulk of the hair is imported from South America, but there is still some out in the western part of our country.

FITCH HAIR

What is commonly known as Fitch Hair is Skunk Hair, Fitch being the trade name. The only part of the Skunk hair that can be used in brushes is taken from the tail. The Skunk hair used is entirely domestic product. Foreign Skunk tails have proven unsatisfactory. There are three kinds of Skunk tails:

- First: We have the Eastern Tails which give us the fine pointed soft silky hair known as the Eastern Skunk, so called because the tails come from Skunks obtained in the Eastern part of the United States.
- Second: A slightly heavier hair which comes from the northern part of the United States and Canada, called Northern Tails.
- Third: A heavier and longer tail from the West, known as Western Tails.

We, however, in the manufacture of Devos Brushes use only the Eastern Tails, and before putting into brushes they are thoroughly washed and cleaned.

RED SABLE

Red Sable is also a trade name, which in reality is taken from Kolinsky Tail. In order to obtain the best the market affords, we buy the tails and dress them ourselves, thereby being in a position to select the long length hair and the best quality tails. This hair is used principally for Artist, Show Card and Sign Painters Brushes.

CAMEL HAIR

Camel Hair is also a trade name. This hair is cut from the tail of the squirrel. There are about four colors of this hair - Red, Gray, Blue and Black. These colors are typical of the country from which the squirrel comes. We use nothing but the Kazan, which comes from the Province of Kazan in Russia. It has a nice brown top with a reddish tint through the middle of the hair. This is known as the highest grade of squirrel hair, and is used exclusively in the manufacture of Devos Camel Hair Brushes.

CIVIT HAIR

This hair comes from the tail of a wild cat found in Central America; it is jet black and of a very silky nature, and is used in Color and Flowing Brushes.

BADGER HAIR

Badger is the only hair that is cut from the animal's pelt, and is used for blenders, principally by furniture manufacturers for blending purposes; also for Badger Finishing and Flowing Brushes, together with Artist Brushes. Badger used is caught in Russia and northwestern part of Germany.