THE CHAMELEON

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The Country of Brazil, South America

As Seen by Mr. L. R. Sansom, Sherwin-Williams Representative

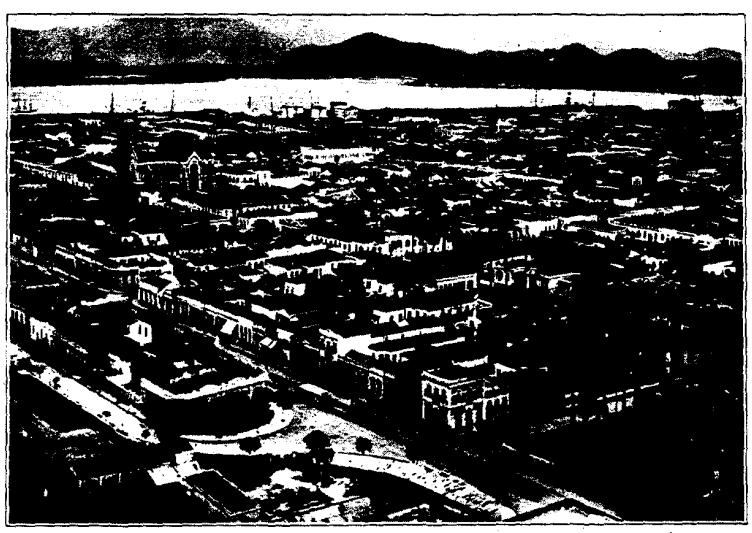
The following article has been written by our representative in Brazil, Mr. L. R. Sansom, who has been visiting Newark and other factories of our company for the last few weeks.

Mr. Sansom's insight into the economic and trade conditions, as well as the social side of Brazil life is very interesting.

The Chameleon staff would like to take this opportunity to thank him for his interest in preparing this article and to say that we of the Newark office have enjoyed his stay among us very much.

We have decided that this article by Mr. Sansom is so well put and contains so much information that it would be best to issue it in parts, the first part being as follows:

It is both a pleasure and a privilege to be able to write a few words for The Chameleon, whose very interesting pages give me, when I am in Brazil, a fascinating picture of the many activities of the members of the Sherwin-Williams Company five thousand miles away from my own camping ground. In writing these words, I am making an attempt to cover matter of a varied character, so as to try and have something of interest for the readers of the magazine in their different spheres of action.



No. 1. This is the Port of Santos, State of Sao Paulo, Brazil. 80% of the coffee imported into the United States is shipped from this port.

Brazil is a country 100,000 square miles larger than the territory of the United States, extending more in a northern and southern direction than it does in an eastern and western direction. Colonized originally by Portuguese, it has been developed later by extensive immigration from many different lands. And today, the extreme southern part of the country has a very large colony of Germans, while in the more central part Italians, Spaniards and other nationalities predominate. Strong temperamental differences are noticed among the people from the different parts of the country, greater energy and activity being displayed by the dwellers in the most southernly parts.

The most advanced and progressive state, out of the twenty into which the republic is divided, is the State of Sao Paulo, with a population of four and a half million today and a capital, called also the City of Sao Paulo, which has rapidly grown in size. Thirty-five years ago that city had a population of 30,000 and today it is slightly above 700,000. The State of Sao Paulo is the biggest producer of coffee in the world. Eighty per cent of the total coffee imported into the United States today comes from Sao Paulo. It is entered from the Port of Santos, which is shown in picture No. 1.

A coffee plantation is a very beautiful place as a rule, as rolling land is the kind best adapted for the cultivation of this plant. The biggest plantation in the State has about 12 million trees. It would be worth today at least 10 million dollars. Smaller plantations are very numerous, and pictures of some of them are shown which represent respectively the gathering of the coffee bean by native labor—and some more personal views of the writer and his family during a few days spent in one of these smaller plantations. Picture No. 3 gives an outline in the distance of the perfectly aligned coffee plants. Picture No. 4 shows a river trip made in a canoe dug out from a single tree. Picture No. 5 shows the writer's little daughter being driven in a small carriage drawn by goats. And, picture No. 2 gives an idea of the primitive ox cart used in some parts of the country; this cart has solid wooden wheels.

The plantation in which these photographs were taken has only about half a million plants, but it takes about 1000 people to take care of it. The place has electric lights, a luxurious residence, swimming pools, beautiful gardens, orchards, etc.

Coffee is not the only production of the State of Sao Paulo. It produces also cotton, sugar, corn, cattle, and it is also the most important manufacturing center in South America, with modern factories where the most up to date systems are followed in operating efficient machinery. Even the natives of Brazil frequently ignore the manufacturing activities of the State of Sao Paulo, and in many instances serious mistakes have been made by American exporters in attempting to ship to Brazil articles that are manufactured in Sao Paulo just as well as they are in the United States, and at a much lower price.

Some of the readers of this paragraph may wonder if any paints are being manufactured in Brazil, and will be interested to know that in the city of Rio de Janeiro there are at least six factories actively engaged and in the city of Sao Paulo three or four more. The product turned out by these factories is not a very high

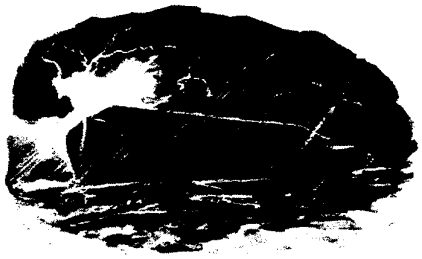
No. 2. A primitive ox cart, used in some parts of the country.

No. 3. Mr. Sansom, with Mrs. Adams and Mr. Monbeiro de Barros, Sr., at the fazenda. Coffee hill in the distance. A coffee plantation is a very beautiful place, as a rule. Observe the trees covering the distant elevation in perfect alignment.

History of Sherwin-Williams Products

By W. R. Sieplein

The use of paint as a protective coating has come down to us from remote antiquity. Even Noah "pitched the Ark within and without with pitch" and the

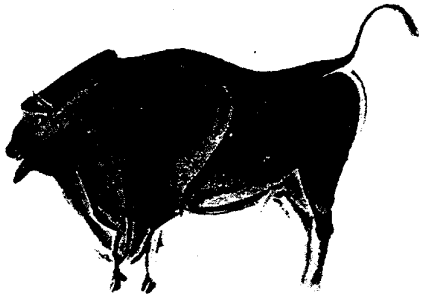


Noah Pitched the Ark.

mother of Moses placed him in an ark of bulrushes which she "daubed with slime and with pitch." At later periods the Jews evidently used paint on their houses, as in Jeremiah appears, "Woe unto him that sayest, I will build me a wide house —ceiled with cedar and painted with vermilion." (Even then it was bad taste to paint a house with vermilion.)

Its use for decoration and picture painting began very much earlier. Pictures of bison, wild boar, reindeer and other animals have recently been found in some caves in Spain. These were evidently the work of cavemen and date from the Paleolithic age, probably 50,000 years ago. These prehistoric pictures are real masterpieces and are far superior to pictures of battles and hunting scenes on the walls of Babylon erected about 2500 years B. C., and wall paintings found in tombs in Thebes dating from 1500 B. C.

In the British Museum are many mummies elaborately decorated, the oldest of these is that of Menkara, who lived



Picture of a buffalo in full colors found in a cave in Spain, probably 50,000 years old.

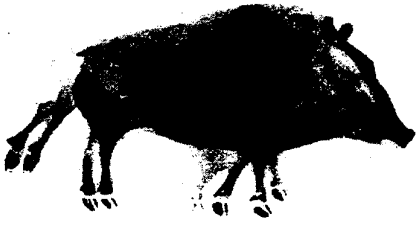
about 4000 years B. C. Many beautifully painted things were found in the tomb of King Tutankhamen where they had lain undisturbed for 3300 years. These references seem to establish the use of paint at least 4000 years before the coming of Christ.

The art of painting developed much more slowly than did sculpture. This was, undoubtedly, due to the crude nature of painting materials available rather than to the skill of the artist. Greek sculpture attained a high state of development as early as four or five centuries B. C., but the art of painting was not fully developed until the remarkable work of the Italian masters in the fifteenth century.

Ancient Galleys being coated with colored wax.

The materials used by the ancients were probably all minerals, natural earth colors, organic dyes from plants, and waxes. The old Greek philosophers are the first to give any definite reference to detail. Theophrastus writing about 350 years B. C., refers to "cerussa" a native mineral carbonate of lead found in small quantities in Europe and Pliny, who lived A. D. 23 to 79, writes of the mode of boiling wax and painting ships with it after which—"neither the sea, nor the wind, nor the sun can destroy the wood thus protected." (First reference to "Save the surface and you save all.")

The Romans being essentially a warlike people never brought the decoration of buildings to the high plane it reached with the Greeks, though the ruins of Pompeii show many structures with mural decorations in very fair condition. The colors used are glaring, usually a black background with bright red, yellow and blue. The black was, undoubtedly, Lamp Black; the red was the mineral Cinnabar, natural vermilion, referred to by Theophrastus and Pliny. This has stood for these centuries with little change of color. The yellow, no doubt, was Yellow Ochre, as pots of Yellow Ochre were found at Pompeii and the blue, undoubtedly, was Lapis Lazuli, the true



Was this an early attempt at a "movy" on the part of some prehistoric cave man?

native ultramarine blue which is in Persia.

The earliest reference to the m facture of any paint material is by phrastus, who described white lead a pared from lead and vinegar evapc to dryness. Pliny again mentions i is not known when the white lead of was first made or to what country it its birth, but tradition assigns disc of the method to the Dutch and to a named Stratingh. It must be over years old, as a patent for a method the present Old Dutch was taken o England in 1622. The length of tim volved encouraged effort to develc more rapid method and the first q process on record is the Chamber pro patented by Sir James Creed in Eng in 1749. Many other processes have l

Portion of an Egyptian Mural.

invented, but the most satisfactory on now in use is the Carter process, patente in July, 1889.

Zinc white seems to have been sug gested first by Curtois of Dijon, France in 1782 and after several unsuccessful attempts to use it for a paint material, Leclair in 1845 found a method to use it for oil paints. Up to this time all zinc oxide was made by the French process from vapors given off by a bath of zinc metal. Zinc oxide has always met with much favor in France and recent legislation has been enacted prohibiting the use of lead carbonate in paints. In 1850 Wetherill patented the American process of making zinc oxide directly from the ore, mixed with coal, by volatilization on a grate.

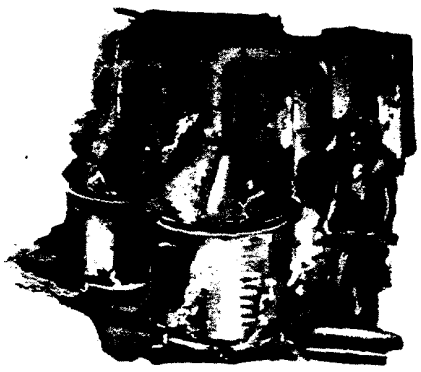
In 1879 the Lewis patent for making sublimed lead was taken out. A vein of lead and zinc ore was discovered in 1870 and smelting it by the Lewis method developed leaded zinc like the Ozlo pigment made by The S-W Co.

Lithopone was first patented in 1874 under the name of Orr's White. There are many variations in the manufacturing process now in use but all produce a material essentially the same.

A portion of a mural from the ruins of Pompeii

Black appears to be the earliest coloring pigment used as from time immemorial soot has been used by savage tribes to paint their faces and color other objects they wished to beautify in this way. Black substantially the same as our present Lamp Black, was made by the Chinese at least 2000 years ago by burning oil in small earthenware lamps with a limited supply of air and collecting the soot thus condensed. Asphalt or bitumen found on the shores of the Dead Sea were used by the early Egyptians on mummy cases. At a much later date, in Europe, Ivory and Bone Blacks were made by burning ivory cuttings or bones in closed retorts and grinding and refining the charred residue. Frankfort or Vine Black was made by a similar method using vine cuttings, stones from plums, olives, almonds or similar fruits. Carbon Black made by the incomplete combustion of gas, was first made in this country in 1864.

The earliest blue on record is Indigo, used in India and Egypt and mentioned by the ancient Byzantine writers, as well as Pliny and others. It is named in the Marseilles tariff of 1228. Natural Ultramarine Blue, Lapis Lazuli, was used many centuries ago, but ultramarine was first made artificially by Christian Gmelin in France in 1828. Prussian Blue was first made in 1710 by a color maker named Diesbach in Berlin. The S-W Co.'s first connection with the industry was through Lewis Steigenberger, who came to London in 1760 and started the manufacture of Prussian Blue in England. He was the founder of Lewis Berger & Sons, Ltd., our present English connection, and the formula used by us today in making Prussian Blue is modified only slightly from his method.



Early Method of making White Zinc by "fuming."

Primitive method of producing Lamp Black with smoking lamps.

Malachite, green copper mineral, was employed by the ancients. Verdigris was used by the Romans as a pigment and has been detected in the wall paint of Pompeii. Paris Green or Emerald Green was discovered in 1814, though Scheele's Green, very similar to this, was made in 1778. This pigment is little used as a paint material now. Chrome Greens, essentially the same as those now used, were first made in France in 1838.

Yellow Ochre, one of the most ancient pigments, was used by the Egyptians, Greeks and Romans. Naples Yellow which is basic lead antimoniate, has been found on Babylonian bricks at least 2500 years old. Chrome Yellow, lead chromate,

Pioneering in color making.

in common use today, was first made about 100 years ago, though some is found in nature.

The browns, such as umber, sienna, iron oxide, etc., are natural earth colors, which probably were some of the earliest

One of the Early Crude Methods of Producing White Lead.

pigments used for decorative purposes.

The earliest red pigment about which we have any information is the native Cinnabar, mercuric sulphide, used by the ancients and Chinese. This is now produced artificially and has been made by Lewis Berger & Sons, Ltd., our English connection, for over 125 years. Red pigment using organic dye derived from the madder plant, a native of Greece, was made in Europe in the 13th century, though madder was used by the Greeks and Romans for dyeing long before it was used for painting. Many other organic dyes have been used but these have been largely displaced by aniline dyes first discovered by Dr. William Henry Perkin in 1856. He made in that year a mauve dye used to dye silk for a dress for Queen Victoria. For this he was knighted.

The history of paint vehicles and varnishes can be presented much more simply than that of pigments, and will be handled in the April Chameleon. The pitch that Noah used was, undoubtedly, a form of crude petroleum and it is remarkable that no other substance has been discovered that is so well adapted to protect surfaces against moisture. (Ebonol may well be proud of its ancient ancestry.)

Waxes were first used as the vehicle for colored paints. Excellent examples of the use of melted wax as a binding medium for pigments, executed in the second and third centuries, are shown in London museums. Later evidently a mixture with oil or animal fat was used to lessen the inconvenience of heating the wax. For interior decoration a size made with fish glue, gum arabic or similar gum or the white or yolk of egg, were the earliest mediums used.

(To be continued in next issue)

"Nothing is to be feared but fear."

"Mr. Stanton, can you get Chicago from Cleveland?"

Answer: "No, but I get Davenport very often," and he seemed pleased. Now how anyone could want Chicago and with a "beaming smile" express satisfaction at having got Davenport is beyond the belief of the uninstructed.