

ve tribes of Israel. My suggestion was endorsed by such pipe historians as Guy Deelef and Don Duco. Nevertheless, compilers continue to present «two opposing theories.» One of them, just recently, said of Jacob «His impressive beard became well known under the Second Empire» and that he played trombone «in the Republican Guard's zouave regiment»! (A Republican Guard under Napoleon III : what a liberal empire!)

Since old ideas die hard, let us look at two documents from the period. They tell us much more than we could learn from any long speech.

JEAN-LÉO



Jacob, I am the real zouave.

HARD RUBBER AND OTHER «EARLY PLAS- TIC PIPES»

This article is an attempt to draw attention on a very interesting field within the area of smoking-collectibles. Many collectors of tobacco-articles know something about many smoking-accessories made out of synthetic material, like ashtrays, match-holders and cigar-cases.

In general there is only a little knowledge about pipes made out of synthetic material, like hard rubber and other early plastics. Pipes, which are completely made out of synthetic material (the bowl and the stem), are very rare. This is not surprisingly, because synthetic material is less heat resistant during smoking, than traditional material like meerschaum, clay or briar.

The use of hard rubber for the production of pipes is not the result of a very long doing research ; however

it is the result of the discovery of vulcanisation in 1839, which increased the application of rubber enormously.

The introduction of rubber

Rubber is a natural product extracted from the rubber tree, *Hevea brasiliensis*. The bark of the tree is cut in a controlled way, as not to disrupt the flow of sap so the tree will survive. The milk-like, syrupy substance is known under several names. In the Amazon area the inland name for rubber tree is «Cahucha» (weeping tree). This word lives on in the French «Caoutchouc» and the German «Kautschuk», both meaning «rubber». The name «rubber» dates from the mid 18th century and was introduced by the famous British theologian and scientist Joseph Priestly.

The rubber-story of the western world starts at the end of the 15th century. Christopher Columbus visi-



Photo 1



Photo 2

ted on his second journey to America the island of Haiti and saw children playing with elastic balls. As a toy the material was introduced in Europe. For the next centuries its application was limited.

In 1731 the French Charles de la Condamine discovered during a surveyor-expedition in Peru that the local inhabitants used rubber to make their clothing waterproof. They also made shoes and bottles by pulling the material around moulds and letting the rubber harden in the sun or above a fireplace.

The British Thomas Hancock experimented in 1820 with forming rub-



Photo 3

ber by mechanical power after heating the material, which resulted in the first waterproof rain clothes, made by Charles Mackintosh. It was the American Charles Goodyear who patented in 1839 the process of stabilising rubber with the help of sulphur, which is called the vulcanisation-process.

The vulcanisation-process

By vulcanising the rubber longer than before and by a larger per-



Photo 4

centage of sulphur (up to 50%) the product became harder. The result was a new material, was the first half-synthetic plastic : it is made out of a natural product that changes by a controlled chemical process.

This new material is known under several names, depending on the production or the appearance : «ebonite», because it looks like ebony ; «vulcanite» because of the process of heating, referring to the

Roman god Vulcan ; «Hard rubber», which speaks for itself.

One of the first patents of Goodyear referring to the new material contained the production of stems of pipes, an application proving to be very suitable because of the material was easy to mould. This hard rubber, though not the most suitable material for pipe-bowls, was until the 20th century used for the production of complete pipes, undoubtedly because of the detailed work that was easy to be made. It was however necessary, to prevent the bowls from melting or burning



Photo 6 et 7



Photo 5

away, to place in the tobacco-pipe-san insert of meerschaum, briar or clay. Cigar-and cigarette holders were produced without insert because it was not necessary.

Two other synthetic materials have to be mentioned in this article, because they have been used intensely for the production of pipes, sometimes in combination with hard rubber. These two materials are casein and Bakelite.

Casein

Casein, in full casein-formaldehyde, consist like the name suggests, an important part of the milk protein



Photo 8

casein, which can be extracted from skimmed milk with a specific enzyme. By exposing the kneadable doughy substance to the liquid formaldehyde for days or even weeks a new material emerges, which will not melt, even at high temperatures. It is a so-called thermosetting synthetic material, like rubber (semi-synthetic). The patent for the production of this material dates from 1899 and belonged to the Germans Krische and Spitteler. They called the new material Galalith. Later it became known also as Erinoid, Ameroid and Kasolid. Casein can be coloured easily. A restriction of



Photo 9

the material is its sensitiveness for liquid. Long-term exposure to liquid makes the material crack.

The pipe-making industry used the material widely till after the second World War for the production of cigarette-pipes (pipettes), while it could easily be pierced, turned or modelled. The longest «Charleston» cigarette-pipes of the 1920's are made of casein.

Bakelite

Bakelite, officially phenol-formaldehyde, is regarded as the first fully synthetic material. The Belgian-born Leo Baekeland invented it in the United States. He succeeded to control the long known heavy chemical reaction between phenol and formaldehyde. Controlled, high temperature and high-pressure, formed the basis for his patent which he obtained in 1907. The result of the chemical reaction is an amber-



Photo 10



Photo 11

coloured resin. Mixed with filling material like sawdust, asbestos or textile-fibres the result, after pressing, is a hard thermosetting synthetic material. The most important qualities of this material are its insulation for electricity, its solidity and the possibility to use it for mass-production. These qualities made Bakelite the most successful synthetic material in the first half of the 20th century. From 1928 it was also produced as moulded resin. Both the pressed and the moulded forms were suitable for the pipe-making industry. Pipes were made from Bakelite and moulded phenol-resin. Complete pipes of Bakelite are very rare because of its lack of heat resistance. Phenol-resin however was frequently used for pipes mouth-pieces and cigarette holders because it imitated amber.

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Literature

- Cool, Patrick an Sessor, Catherine, Bakeliet, Helmond 1993
 Engelen, Jos, De Meerschuijpijp, in : Pijpologische Kring Nederland, 20^{ste} jaargang nr. 80 (1988), page 998
 Katz, Sylvia, Early Plastics, Shire Publication nr. 168 (1986)
 Perrée, Rob, Bakelite, Amsterdam 1996
 Tymstra, Fred, Bakelieten pijpen met stenen potje, in : Pijpologische Kring Nederland, 16^e jaargang nr. 63, page 566-572 (1993)
 Woshner, Mike, India-Rubber and Gutta Percha in the Civil War Era, z.pl., z.j.

Catalogues

- Smokers Articles and Walking Canes and Miscellaneous Goods, The Novelty Rubber Co., New York 1877
 Price Current, Goodyear's Rubber MFG Co. And Goodyear's I.R. Clove MFG Co., New York 1880
 Pipes and smokers Articles, Zorn & Co George, Philadelphia 1892 (reprint by Paul Jung Jr., 1989)
 Catalogue Général, Bessard-Pignol Gustave, Clermont Ferrand 1894.

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Descriptions of the photographs :

1 - Rare pressed one-piece hard rubber pipe. In exceptional Art-deco style there is a man on a sledge. The lid in the form of a helmet is made of briar. Fabrication unknown .

2 - Hard rubber pipe, pressed in one piece in the form of the head of a Negro-woman. Briar-insert. The washer is made of asbestos. Pieces of the original colouring are visible near the earrings and the necklace.

3 - One-piece hard rubber pipe in the form of the head of a man. The briar-insert is burned away completely.

4 - Hard rubber pipe in the form of a 19th century lady, made in a brown colour suggesting the pipe being made of meerschaum. The phenol-resin mouthpiece imitates amber. A golden ring is connecting the stem to the bowl. Because of the invention of phenol-resin the pipe can be dated after 1928.

5 - A bearded man's head. The briar-insert is burned away completely.

6 - Cigar-and cigarette-pipes also were made out of hard rubber. The bottom one has a double flue. The curled pipe in the catalogue of Georg Zorn & co. Of Philadelphia is called the «Bugle».

7 - Four different cigar-and cigarette holders made out of hard rubber. The bottom-one has the form of a wine-bowl held by a man's hand. In the bottom there is a small looking-glass with a representation of the martyrs of Gorkum.

8 - Bars of unprocessed casein, in various colours and thickness. It is easy to be recognised as casein : when rubbing intensely it smells something like cheese...

9 - A group of four cigarette-pipes, made in the 1950's. The three identical were made out of phenol-resin, the other completely out of casein.

10 - The Dutch factory WIJA produced this «sanity-pipe» around 1935. When the tobacco was put in the bowl the lid was fixed on it and the pipe had to be lit on the side. The tobacco burned from below to the top. Except for the metal inlay the pipe is completely made out of Bakelite.

11 - The Büttner «sanitary» pipe from Germany has been produced in several versions. The ceramic inserts were delivered separately. The pipe shown on this photo is made out of Bakelite.

LOUISE, FRANÇOISE, DUCHESS DE LA VALLIERE

A Sincere and Worthy Favourite of the Sun King

Among the numerous favourites of the French King, Madame de la Vallière was one of the most loved. She was an extremely modest woman whose love for King Louis XIV was as genuine as her sadness when the king's preference shifted



to the Marquise de Montespan. In addition, the end of her life was most edifying.

In 1839, the catalogue of the sixth series of fine pipes by the prestigious Gambier factory in Givet contained the first reference to a beautiful bowl representing a bust of the duchess under its No. 441 (height : 8,5 cm ; width : 5,6 cm).

A very fine Gambier model, with enamelling and a beautiful sculpture, it was an immediate success, and production of the clay pipe bowl continued until the beginning of the 20th century. The model was listed in the inventory at the company's sale in 1858, and appeared again in the 1860, 1880, 1894 and 1908 catalogues.

Louise, Françoise de la Baume le Blanc was born on 6 August 1644 in Tours, where she was baptised the very next day. Her father, Laurent, Seigneur de la Vallière, was master of the cavalry, and her mother, Françoise le Prévost, had been left a widow in a first marriage.

Louise belonged to an old family with many alliances. Her father had defended the city and chateau of Amboise during the Fronde (insur-