

GUM

The early adhesive postage stamps issued by most countries of the world had, applied to their backs, an adhesive sometimes called "a brown glutinous mess". These days we are particularly aware of this manifestation on our older stamps, partly no doubt as the aging gum has had or is having an adverse effect on our treasures.

On the sheet margins of the first adhesive stamps issued by Great Britain in May 1840 - the Penny Black and the Twopenny Blue - instructions were given as follows:

"In wetting the back be careful not to remove the **cement**" !!

In the case of the British stamps, one coat of gum (cement) was applied to the sheet of stamps, and in 1864 two coats of gum were applied. Until improved, this lacked adhesiveness and was unpleasant to taste. The colour varied from white to brown.

As we all know, the age of the gum (cement) changes its characteristics and it tends to become darker in colour and also tends to crack.

The first gum used can generally be described as "Gum Arabic" which is obtained from either of two species of Acacia. These days Gum Arabic has generally been replaced by various types of P.V.A. adhesives, and some countries have used 'self adhesive' material.

Messrs. Perkins Bacon, who printed the first adhesive stamps for Great Britain and the majority of the British Colonies, including the first issues of New Zealand, stated in 1849 that the gum they used was made up of 3lb of Gum Arabic to 5lb of water, and the mixture was strained twice after the Gum Arabic was dissolved. They suggested that it be applied with a No. 2 painters brush. This method of applying the gum to the printed sheets would have been both tedious and messy, and the curled and were not easy to handle. It was then necessary to roll and re-roll the sheets in opposite directions in groups of 10 or 12 sheets to remove the curl and make them lie flat for storage purposes.

It is said that "Necessity is the mother of invention", and this early method of gumming sheets was soon changed, firstly by making use of the printing machine, wrapping the cylinders with cloth and substituting gum for the ink in the duct.

This early method of 'mechanical' gumming was further developed and cylinder type gumming machines were used, followed by direct gumming machines. Drying of the gum also became more sophisticated, and drying times were closely regulated, as was the degree of heat. Both these factors had an effect on the paper; for example, if it took too long to dry the gum could penetrate too deeply, and if too quickly the paper could become brittle. Expansion and contraction were also problems in the early days. These days, gumming is either carried out prior to printing, or at the same time.

With the Gum Arabic adhesive, the browning of the gum, either through 'age' or due to climatic conditions, tended to tone the paper, and is also these days more closely associated with one of the biggest problems of all in climates such as ours, and that is "foxing" or "rust". To a large degree this has been overcome by the use of dextrine and P.V.A. adhesives. "Dampness" is the predisposing cause of most staining, rust or foxing brought about by the interaction between the gum and the inks used for printing stamps or even the impurities in the manufacture of the paper.

A gum which has been used for some U.S.A. issues was made from an extract of cassava root (tapioca)!

"Foxing" or "Rust", which has nothing to do with the oxidation of ferrous metals, is actually a 'brown mould' or 'fungi' living on the gum, accentuated by humid conditions, and is best kept at bay by thoroughly cleaning off all the surplus gum from used stamps, and it may sometimes be necessary to treat mint stamps. Always ensure that your stamps are kept in a dry and well ventilated location. Stamp albums should be stored upright, and not laid flat.

Removal of "rust" or "foxing" can be carried out, but is best left to the more senior and experienced collector, the watchword being that you should first experiment on a damaged and worthless item, and when using chemicals, for example 'Chloramine T', remember that on completion you must completely neutralise the chemical by a thorough washing with clean water, and even then the chemical may carry on reacting for a very long time in the future.

One of the leading Philatelists of Australia, the late J.R.W. Purves, is reported as saying that "rust" never, ever worried him, as he considered it was the "patina of time". Remember, a 'persil white' stamp of the 1840's is far more out of place than one which is 'toned'.

