

## All that Glitters is not Gold – an introduction to hallmarking.

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*"This third I will put into the fire; I will refine them like silver and test them like gold." (Zechariah 13:8)*

### Introduction

Precious metals have been prized by man since the earliest days of civilization. Gold and silver were refined and tested in biblical times and the above quotation from Zechariah, written in about 500 BC, is interesting as it cites both the refining and testing of silver and gold.

There are several reasons why gold and silver are prized. They are rare, being found only in certain places and in relatively small quantities. Gold is found in the elemental form, usually pure but sometimes alloyed with silver. Silver is sometimes found pure, but most often as a compound from which silver can be extracted. Of special importance is their corrosion resistance: gold corrodes not at all and silver acquires a surface discoloration (tarnish) that is easily polished off. This property is of great practical value, and was especially so before the advent of modern corrosion-resistant metals such as stainless steel, chromium plate and titanium. Because of their rarity, unreactivity, and malleability, they are still much-favoured materials for jewellery, and when polished, their beauty is unsurpassed.

### Some Applications of Gold and Silver

The unique properties of gold and silver are exploited for a wide range of special applications. Gold has been used in dentistry for thousands of years because of its corrosion resistance, malleability and bio-compatibility, and silver amalgam is traditionally a favoured material for fillings. Electrical contacts frequently use silver for its outstanding conductivity, and gold is valued for contacts where its corrosion resistance confers high reliability for modern electronic devices. Gold is well known as the ultimate currency material, and silver coins were in general use until shortly after the Second World War. The medicinal use of gold can be traced back to 2500 BC in China, for skin and other conditions, and today gold salts are applied to treat joint conditions including arthritis. The malleability of gold allows it to be beaten into gold leaf a few microns thick, to be applied as a brilliant coating for buildings and monuments, and its reflective power is applied to space vehicles and helmets to reduce the effects of harmful radiation. One of the most important industrial uses of silver has been in light-sensitive materials for photography and radiography, and its anti-bacterial qualities have been applied to food and drink vessels and cutlery. Thus the two precious metals that we associate with jewellery and fine metal ware and that we prove by hallmarking also play an important rôle in industry, commerce and healthcare.

### The Development of Hallmarking

Hallmarking is one of the earliest examples of consumer protection. Inspection and marking of precious metals was practised in ancient times, and there is reported evidence of silver marking in the Augustinian era around 350 AD and in the Byzantine Empire in the sixth century AD. In the Middle Ages, "modern" hallmarking was introduced in France in 1260, and shortly afterwards in

England and Switzerland. Under King Edward I (1300s), the sterling standard for silver (92.5%) was introduced with the requirement that it be assayed and marked with a leopard's head. A charter was later granted to the Worshipful Company of Goldsmiths, and in due course the Assay Office was established at The Goldsmiths' Hall, from which the term "hallmark" is said to have originated. Over several centuries, provincial assay offices were established in several towns including Chester, Exeter, Newcastle, Norwich, Edinburgh, Glasgow and Dublin. In 1773, assay offices were opened in Birmingham and Sheffield, despite opposition from the Goldsmiths' Company, and over the following two centuries, most of the provincial offices were closed, leaving only London, Birmingham, Sheffield and Edinburgh in the United Kingdom, and Dublin in Ireland. Each office had its own distinguishing marks, and in 1973, the Hallmarking Act incorporated provisions of the Vienna International Convention of 1972, which harmonized the markings applied by the several assay offices and allowed international Convention marks to be used as an alternative to the traditional UK hallmarks. Many amendments have since been made to the legislation. The 1973 act introduced the requirement for hallmarking platinum, and more recently in 2010, hallmarking of palladium also became compulsory.

### The Components of a Hallmark

The purpose of hallmarking is to demonstrate the level of purity of a precious metal, and a hallmark traditionally consists of four components indicating the assay office in which it was tested, the fineness of the metal, the maker (or sponsor) of the item, and the date of assay:



Components of a Hallmark (theassayoffice.com)

The Assay Office Mark. We saw earlier that in the fourteenth century, items were marked with a leopard's head, and this remains the assay office mark for London to the present day. The mark for Edinburgh is a castle. When the Sheffield and Birmingham offices were opened, the story goes, the business was negotiated in a pub called the Crown and Anchor. They drew lots for the emblem to use and Sheffield chose the crown, and Birmingham had the anchor. The anchor is still the office mark for Birmingham, and Sheffield used the crown for silver until 1974. This office did not assay gold until 1903, and because the crown was used as a fineness mark for gold, they adopted the Yorkshire rose as the office mark on gold. After 1974, the rose became the Sheffield assay office mark and the crown was discontinued.



Birmingham



Edinburgh



London



Sheffield



Sheffield to 1974

United Kingdom Assay Office Marks (theassayoffice.com)

Chester



Exeter



Glasgow



Newcastle



Norwich



York

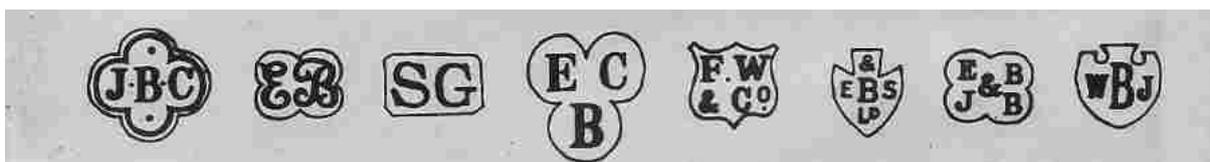


Historic Assay Office Marks (Internet image)

The Fineness Mark. The normal purity standard for silver is sterling silver (92.5% pure) in the UK, where it is traditionally indicated by a lion, although in the early eighteenth century, a higher standard, Britannia silver (95.8% and carrying an image of Britannia), was introduced to prevent the melting of sterling silver coins. The fineness of gold is indicated by a crown, together with an indication of purity expressed either in carat (pure gold is 24 carat), or as a number of parts per thousand (the millesimal standard). The usual standards in the UK are 9 carat (375), 18 carat (750) and 22 carat (916), although other standards, e.g. 14 carat (583), have been used at various times. Recent UK legislation has made the use of numerical fineness marks obligatory, and the lion or crown is optional.

The Maker's (or Sponsor's) Mark

The maker's mark usually consists of the initials of the tradesman or firm producing the article or presenting the article for assay, in a characteristic type face and set in a shield of a distinctive shape. There are thousands of makers' marks and these provide an interesting history of the trade. A few attractive examples are shown below.



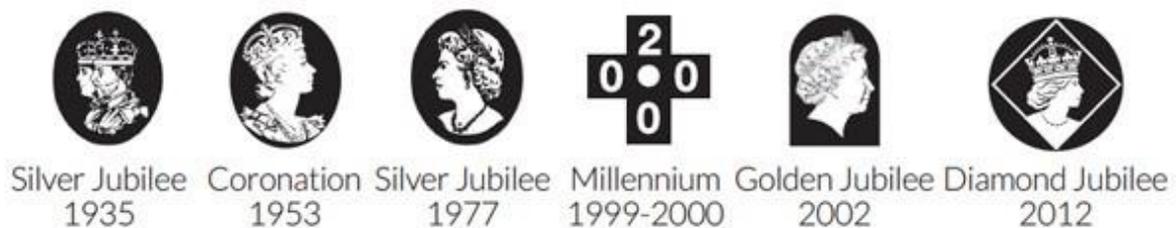
Other well-known marks include J.C (Jacques Cartier, London, 20<sup>th</sup> century), J.G (Joseph Gloster, Birmingham 1899), bWc (British Watch Cases, London/Edinburgh), and the famous silversmith Hester Bateman ((HB).

### The Date Letter

The date letter is the fourth main component of a hallmark, and consists of a letter within a shield. The letter normally advances each year through the alphabet, and the sequence is repeated using a different style of typeface and a different shape of shield. Thus the date of assay can be ascertained with accuracy. Until 1974, each assay office used a different letter sequence, but from 1975, the letters have been harmonized across all four UK offices.

### Other Marks

From 1784 until 1890, a tax was levied on silver assayed in Great Britain, and during this period a duty mark, in the form of the sovereign's head, was added to show that this tax had been paid. Additionally, in notable years of a sovereign's reign, a special commemorative mark has been added. Thus, the Silver Jubilee of King George V and Queen Mary, and the Coronation and Silver, Golden and Diamond Jubilees of Queen Elizabeth II have been marked in this way. There was also a special mark for the Millennium.



COMMEMORATIVE MARKS (Internet Image)

### Imported Items

During the nineteenth century, an act of parliament decreed that imported gold and silver could not be sold unless assayed at a British office. A number of measures were introduced to distinguish imported plate from British-made wares, including the stamping of distinctive office marks for imported plate. These are illustrated below.

ASSAY OFFICE	PERIOD	GOLD MARK	SILVER MARK
LONDON	1904-06		
	1906-98		
BIRMINGHAM	1904-98		
CHESTER	1904-62		
DUBLIN	1904-06		
	1906-98		
EDINBURGH	1904-98		
GLASGOW	1904-06		
	1906-64		
SHEFFIELD	1904-06		
	1906-98		

## ASSAY OFFICE MARKS ON IMPORTED PLATE (Internet Image)

Foreign articles purchased abroad will bear a hallmark appropriate to the country of origin. These vary greatly and can make interesting material for research.

### Convention Hallmarks

In order to facilitate international trade in precious metal items, an international convention was ratified by a number of European countries in the 1970s to harmonize standards and marking. This resulted in the introduction of Convention hallmarks, which are recognized by all signatories to the Convention. These marks may be struck in addition to or in place of the UK assay office hallmarks. A Convention hallmark consists of a COMMON CONTROL MARK, a STANDARD OF FINENESS, an ASSAY OFFICE MARK and a SPONSOR'S MARK. The common control mark is in the form of a balance in a shield of a shape indicating the precious metal. The millesimal fineness may be included in this, or shown in a separate mark.



An Example of a Convention Hallmark (theassayoffice.com)



A Selection of International Assay Office Marks (theassayoffice.com)

### The IEFBS British Section President's Badge

Our President's badge (which is described in the IESF Newsletter, Issue 23, May 2017), presents an interesting example of a hallmark. It was assayed in 1977 so as well as the leopard's head for

London, the lion for sterling silver and the date latter, we see also the head of Her Majesty the Queen, to commemorate her Silver Jubilee.



The IESF President's Badge and Its Hallmark

### Sources of Information

In this short article it has been possible only to scratch the surface of a vast and often complex subject, which demands much further study by those whose interest has been aroused. One of the most popular books to assist in the study of hallmarking and the identification of individual hallmarks is Bradbury's Book of Hallmarks, published by the Sheffield Assay Office, ISBN 978-1872212081. Many websites are also available and some of the more useful are:

- <https://www.assayofficelondon.co.uk/> and <https://theassayoffice.com/> - general information on hallmarking and history
- <https://en.wikipedia.org/wiki/Hallmark> - worldwide hallmarking information
- <https://www.silvermakersmarks.co.uk/> - identification of British and Irish makers' marks
- [https://www.925-1000.com/foreign\\_marks.html](https://www.925-1000.com/foreign_marks.html) - identification of foreign hallmarks.

### Summary and Conclusion

In this brief study I have attempted to provide an insight into the fascinating world of hallmarking, with its long history and tradition over many centuries. Hallmarking provides valuable and largely reliable information on the provenance of precious metal items, and although modern legislation and practice have resulted in a streamlining of the process, it remains a source of intrigue, and perhaps a pleasant surprise, to the investigator of a family heirloom or other treasure. So during the present situation, you may find that a look at some of your gold and silver articles will provide a profitable way to spend a lockdown afternoon!