

The 1716 Van Leeuwenhoek Medal

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Summary – On 3 June 1716, Anthoni van Leeuwenhoek was honoured by the University of Leuven with a silver medal in recognition of his “celebrated discoveries in Natural Philosophy.” The most recent record of this medal is in the inventory of the estate left by his daughter. After 1745 no trace of this medal could be found, indicating that all existing specimens are copies. An inventory yielded a total of seven medals of three different types, which all date from before 1900. Comparing these medals with existing illustrations shows that there are two bronze copies of the original medal (Type I). The four specimens of Type II and unique Type III medal are newly made. However, auction catalogues suggest that more copies have existed. Finally, a cast reproduction from 1982 is described.

Samenvatting – Op 3 juni 1716 ontving Anthoni van Leeuwenhoek een zilveren penning van de Universiteit van Leuven als waardering voor zijn “beroemde ontdekkingen in de natuurfilosofie.” Deze penning wordt voor het laatst genoemd in 1745, als onderdeel van de nagelaten boedel van zijn dochter. Na 1745 ontbreekt elk spoor van deze penning; alle bestaande exemplaren moeten kopieën zijn. Bij een inventarisatie zijn in totaal zeven exemplaren gevonden van drie verschillende typen. Uit een vergelijking met bestaande illustraties blijkt dat twee hiervan afgietsels zijn van de originele penning (Type I). De vier zilveren penningen van Type II en de bronzen penning van Type III zijn afgietsels van nieuw gemaakt exemplaren. Uit veilingcatalogi blijkt dat er meer exemplaren van deze penning hebben bestaan. Tot slot wordt een gegoten reproductie uit 1982 beschreven.

In 1716, Antoni van Leeuwenhoek of Delft (the Netherlands), the ‘Father’ of microbiology was presented with a medal by Leuven (Louvain, Southern Netherlands) University for his scientific achievements. This event was recounted in a 1982 article by Dr H. L. Houtzager.¹ This article was illustrated with a copy of the medal and the author stated: “Unfortunately, the medal, which was initially kept in the Municipal Museum in Delft, is missing.” The result of my search for this original medal will be described here. I will answer the questions of what the original medal looked like, what probably happened to it and what copies are in existence today. As part of this study an inventory was made of auction records of the Van Leeuwenhoek medal and also of its presence in collections.

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¹ Houtzager, 1982: 189-191.

Antoni van Leeuwenhoek

A great many books and articles about the life and discoveries of Antoni (also variously spelled as Ant(h)on-ie -y or -ij) van Leeuwenhoek have been published. A comprehensive overview of his life and work is given on the website Lens on Leeuwenhoek.² A classic book about Van Leeuwenhoek and his microscopic discoveries was written by Clifford Dobell F.R.S.

Antoni van Leeuwenhoek was born on 24 October 1632 in the city of Delft, the fifth of seven children. His father was a basket maker. When he was five years old, his father died and he was sent to school in the village of Warmond, near Leiden. From 1648 to 1654 he lived with his uncle Pieter Maurits Douchy, a wool merchant in Amsterdam. There he worked first as an aide and later as cashier for the Scottish merchant William Davidson. Returning to Delft he married Barbara de Meij in 1654 and took up the profession of dealer in cloth. The pair had five children of whom four died in infancy. Only his daughter Maria reached adulthood.³ His first wife died in 1666. In 1671 he married Cornelia Swalmius (died 1694), daughter of a Dutch Reformed minister. She was from a family of city magistrates and doctors. In 1660 Antoni was appointed to the official function of *camerbewaerder* (chamberlain) and in 1666 he became *wijckmeester generaal* (district supervisor). In 1669 he took the examination for *landmeter* (surveyor) and in 1679 he was appointed *wijnroeier* (wine gauger).⁴ In 1673, on recommendation of physician Regnerus de Graaf, also from Delft, he started his correspondence with the Royal Society in London to which he was elected fellow in 1680. Over the years he sent to the Royal Society more than two hundred letters describing his microscopic discoveries. As he spoke Dutch only, he had some of his letters translated into Latin but most were sent in Dutch. His single lens microscopes were made entirely by himself. Most of these were made from silver and three from gold. The gold was refined from ore by himself. These microscopes provided a higher magnification and had a clearer lens than those made by others at the time. This allowed him to make many new discoveries. He was, for example, the first to describe small organisms in water (infusoria and protists), red blood cells and sperm cells. Many of his discoveries were published in the *Philosophical Transactions of the Royal Society*. Van Leeuwenhoek became quite famous and he was visited by many scientists and also high-ranking dignitaries like the Russian Czar Peter the Great in 1697 and Anton Ulrich, duke of Brunswick-Wolfenbüttel, who presented him with a medal bearing his portrait.⁵

² <https://lensonleeuwenhoek.net/>.

³ Van den Burg, 1995: 133-183.

⁴ *Ibid.*

⁵ Van Loon, 1731: 223.

The Original Medal

On 3 June 1716, Van Leeuwenhoek, aged 83 years, was honoured with a silver medal by the University of Leuven. The medal was presented in the house of Delft notary Jacob van der Werff by Mr. Gerard van Loon of Delft, graduate of Leuven University and later the author of a standard work on 16th- and 17th-century Dutch historical medals. The accompanying letter of recognition was signed by Anthony Cink, professor of philosophy and the other professors of philosophy and medicine. The letter stated that the medal serves as an honourable gift in appreciation of Van Leeuwenhoek's "celebrated discoveries in Natural Philosophy."⁶ The medal was enclosed in a little horn box, lined inside with velvet, and in a little bag of gold cloth. It is illustrated in the work by Van Loon (see below). The obverse shows a portrait of Van Leeuwenhoek facing left, with the inscription: **ANT. LEEUWENHOEK REG: SOC: ANGL: MEMB^R** (Anthoni Leeuwenhoek, Member of the Royal Society of England). On the reverse, the town of Delft is shown in the background, with the old church on the left, the new church on the right and the town hall in the middle. On the foreground is a beehive with bees flying and feeding from a flowering plant. At the bottom is the motto: **IN TENUI LABOR AT TENUIS NON GLORIA** (The labour is on a trifling subject, but the glory is not small), which is taken from Georgics by Virgil, book IV, verse 6.⁷

Antoni van Leeuwenhoek died in 1723, aged 90 years. His heir was his only surviving child, unmarried daughter Maria van Leeuwenhoek with whom he lived. Maria received the entire estate with the exception of 26 of his microscopes that were sent as a gift to the Royal Society in London. Maria van Leeuwenhoek died in 1745, aged 89. An inventory of her estate was made by notary Joris Geesteranus on 26 June 1645.⁸ This inventory contains a listing, headed: *Contanten in de Ysere Kist op de Bovenvoorkamer gevonden. Art. 74.* (Cash in the iron box, found in the upper front room). In this paragraph a large quantity of current silver and gold coins is listed together with a small number of silver medals and some foreign coins. The total value of the contents was almost 10,000 gulden.⁹ A transcription of the Medal and Foreign Coins listing, headed *Silvere Munten en Vremd Geld* (Silver coins and foreign money) is shown in Appendix 1. The fourth entry reads: "*1 anthonij Leeuwenhoek 1 Onc. 18 Eng. a 3 gl 't ons.*" This entry obviously refers to the Van Leeuwenhoek medal. The weight of the medal is given in the *Pond Hollands-Mark* system where 1 pond = 2 mark = 16 ons = 32 lood = 320 engels = 492.16772 grams.¹⁰ The weight given: 1 ons and 18 engels

⁶ Dobell, 1932: 79-81.

⁷ Van Loon, 1731: 224.

⁸ Stadsarchief Delft. Notarieel archief 161.2791, archief Notaris Joris Geesteranus, 26 Juni 1745 Folio 106.

⁹ *ibid.*

¹⁰ Staring, 1902: 92.

equals 5.44 g. With silver valued at *f* 3 per ons, the medal has a value of *f* 5:14:--, i.e. 5 gulden, 14 stuivers and 0 penningen (1 gulden is equal to 20 stuivers and 1 stuiver to 16 penningen).

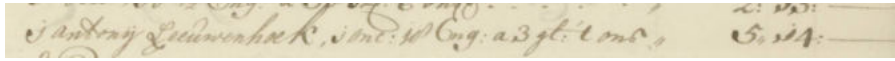


Fig. 1 – The Van Leeuwenhoek medal, as described in the inventory of the estate of Maria van Leeuwenhoek

A detailed description of the dispersal of the assets left by Maria van Leeuwenhoek is given by Zuidervart & Anderson.¹¹ The Delft notary Willem van der Lely and his brother-in-law Gerard van Assendelft, were the executors of the estate left by Maria. On 25 August 1745, the house was sold to Dirck Jansz Haaxman, one of the heirs, who would convert it into a bakery. Maria's textile business was probably auctioned by Adriaan Rees in June 1746. In this auction a large lot of textiles was sold together with various items of furniture and also an *Yzere Geldkist* (iron money box), likely the one in which the money and the medals had been kept. Rees was also commissioned to organize a public auction of Van Leeuwenhoek's microscopes which took place on 29 May 1747. Van Leeuwenhoek's books and surveying instruments, seem to have been sold anonymously in a separate auction by Andries Voorstad, a retailer of books, on 23 May 1747. In the advertisement for this auction, after mentioning the books, it is stated that: "*als mede een fraaye party Musicq, Prenten, Mathematische Instrumenten, en Rariteiten.*"¹² (also a beautiful lot of music, prints, mathematical instruments, and rarities.) At that time, it was not unusual for medals to be included in book auctions. As the number of medals in the estate was quite small they might have been included as part of the *rariteiten*. Unfortunately, there is no way to check as no copy of the auction catalogue could be located. Alternatively, the medals in the estate, together with the foreign coins, could have been sold as scrap silver. References to the medal's whereabouts after 1745 are lacking and no silver Van Leeuwenhoek medal having a weight of 58.44 g, as given for the specimen in the inventory, was found in any of the auctions recorded (Appendix 2).

The Van Leeuwenhoek Medal in Collections

The following listing of Van Leeuwenhoek medals in collections has been made using references in catalogues. Also, several published inventories of museums have been consulted but this did not yield additional specimens. The medals available in Dutch collections have been studied in person; for the medals in foreign collections, photos were used. For ease of reference the medals found have been numbered. The bronze medals start with B1 and the silver ones with A1.

¹¹ Zuidervart, 2016: 257-288.

¹² *Hollandsche Historische Courant*, 16 May 1747: 2.

National Numismatic Collection Amsterdam

In the National Numismatic Collection (NNC) at De Nederlandsche Bank in Amsterdam two specimens of the Van Leeuwenhoek medal are present, one in silver and one in bronze. Both derive from the collection of the Koninklijk Penningkabinet (KPK) (Royal Coin Cabinet) in the Hague, which collection now resides in the NNC. Both medals are listed in the 1903 catalogue of Dutch medals in the KPK.¹³ Both are also listed in the 1885 catalogue of medals of Great Britain and Ireland by Hawkins *et al.*¹⁴



*Fig. 2 – Bronze Van Leeuwenhoek medal B1. Diameter 56 mm and 41.0 g: Type I.
(Photo NNC Inventory PE-03321)*



*Fig. 3 – Silver Van Leeuwenhoek medal A1. Diameter 54 mm and 30 g: Type II
(Photo NNC Inventory PE-03320)*

¹³ Catalogue KPK: Dompierre de Chauffepié, 1903: 284.

¹⁴ Catalogue BM: Hawkins, 1885: 508.

The two medals are clearly different. The bronze, Type I medal has a naturalistic portrait with fine hair, while the Type II medal is caricature-like and the portrait has coarse hair. Also the reverses are different. On the Type I medal, the flowering plant on the left, that resembles a rose, is depicted more delicately than the rather coarse and unrecognisable one of Type II. Also, on the Type I medal the bees are much smaller and the towers of the buildings in the background are lower.

In the Catalogue BM the location of the bronze medal is given as *Leyden*. This refers to the collection of the *Academisch Penningkabinet*. In a 1867 description of this collection it is stated that a *Gedenkpenning ter eere van Van Leeuwenhoek* (commemorative medal in honour of Van Leeuwenhoek) is present.¹⁵ The provenance of this medal is not given. In 1880, the major part of the collection of the Academisch Penningkabinet in Leiden was transferred to the KPK in The Hague.¹⁶

Table 1 – Medal B1, bronze, Type I, diameter 56 mm; weight 41.0 g.

Year	Collection	Comments
1867	Academisch Penningkabinet Leiden	Mentioned in the description of the collection (1867). Listed in Catalogue BM (1885), Nr.508
1880	KPK Den Haag	Transferred from the collection Academisch Penningkabinet Leiden. Listed in Catalogue KPK (1903), Nr.1929
2022	NNC Amsterdam	Inventory PE-03321

Table 2 – Medal A1, silver, Type II, diameter 54 mm; weight 30 g.

Year	Collection	Comments
1885	KPK The Hague	Listed in Catalogue BM (1885), Nr.508 Listed in Catalogue KPK (1903), Nr.1928
2022	NNC Amsterdam	Inventory PE-03320

The provenance of the silver medal A1 is unknown. This medal is made from two separate casts, one for the obverse and another for the reverse. These are soldered inside a ring with a width of about 3.5 mm. In this ring, a small hole is made to allow the hot gases from the soldering operation to escape. On both

¹⁵ Van der Chijs, 1867: 71.

¹⁶ Pauts, 2020: 20–23.

sides, the rim extends about 1 mm above the surface. The body of the medal is thus hollow and also quite thin, which explains its relatively low weight. The surfaces of the medal are chased, which is done to flatten the fields by removing the small surface irregularities due to casting. Casting irregularities are still present around the raised parts of the design, as can be seen from the enlargement. Also, the scratches due to chasing of the fields are clearly visible. The bronze medal, B1, is also cast but not chased. This is a solid cast, also with the rim extending about 1 mm above the surface on either side. The casting irregularities can be clearly seen, both on the plain surface and around the raised parts of the lettering. A feature of the silver medal is the dot between the letter **K** (from **LEEUWENHOEK**) and **R** (from **REG**) which is not actually raised but simulated by a small incuse circle. This dot is not present on the bronze medal.



Fig. 4 – Detail of medal A1 (left) and B1 (right) showing the irregularities due to casting

A peculiarity of the bronze medal is the added engraving **VIRG:** and **IGEORG** to the left and right of the motto. This engraving is a reference to Virgil's work *Georgics*, from which the motto on the medal **IN TENUI LABOR AT TENUIS NON GLORIA** was taken. This engraving clearly was already present on the medal from which the cast was made.



*Fig. 5 – Detail of Medal B1, incuse text: **VIRG:** to the left and **IGEORG** to the right*

Rijksmuseum Boerhaave Leiden

In the collection of the Museum Boerhaave in Leiden two silver medals are present, A2 and A3. The first one is since 1952 on loan from the Prinsenhof Museum in Delft, formerly the Delft City Museum.¹⁷ This medal was legated in 1892 from the collection of P.M. Beelaerts.¹⁸ This medal was thought to be the original medal, presented to Van Leeuwenhoek in 1716. This cannot be correct, however, as the weight of the medal is only 32.0 g, much lower than the weight of 58.44 g recorded for the original medal. This medal was produced in the same way as medal A1 in the NNC, and described above. It also is of Type II.

Table 3 – Medal A2, silver, Type II, diameter 53.5 mm; weight 32.0 g.

Year	Collection	Comments
1892	P.M. Beelaerts	Born 1805 - died 1892
1892	Delft City Museum	From the estate of P.M. Beelaerts. Listed in Catalogue Delft (1905), Nr.VIII A 43
1952	Museum Boerhaave	Received on loan from Delft City Museum
2022	Museum Boerhaave	Inventory v25285

The second medal, A3, was obtained in 1947 as a gift from C.J. van der Klaauw, one of the founders of the Museum Boerhaave.¹⁹ The medal is said to have been obtained from coin and medal dealer J. Schulman in Amsterdam. This is doubtful, however, as the medal is not listed in the Schulman registry.²⁰ It is of the same Type II as medals A1 and A2 and was also produced in the same manner. A difference is that the surface of medal A3 has not been chased and still clearly shows the signs of casting.

¹⁷ Information provided by Maaïke van Rossum, Registrar Rijksmuseum Boerhaave, Leiden.

¹⁸ Morre, 1905: 50.

¹⁹ Information provided by Maaïke van Rossum.

²⁰ Information provided by Tim Poelman, Schulman b.v. Amsterdam.

Table 4 – Medal A3, silver, Type II, diameter 53.4 mm; weight 33.1 g.

Year	Collection	Comments
1947	Dr C.J. van der Klaauw	Said to be obtained from J. Schulman. Uncertain as the medal is not mentioned in the Schulman registry
1947	Museum Boerhaave	Gift from Dr C.J. van der Klaauw
2022	Museum Boerhaave	Inventory v25267

American Numismatic Society, New York

A silver copy of the Van Leeuwenhoek medal is present in the collection of the American Numismatic Society. This medal is cast and chased. Traces of casting have also been removed between the letters of the inscription, whereby some of the letters have been slightly damaged. Otherwise, this specimen seems to be identical to A1, it is also of Type II.

In a series of publications about medals related to medicine by Dr Horatio R. Storer in the American Numismatic Journal, two copies of the Van Leeuwenhoek medal are mentioned, one in silver and one in bronze. One medal was in the Boston collection, and another in the collection of Mr Daniel Parish Jr of New York.²¹ This latter collection was donated in 1908 to the American Numismatic Society in New York.²²

Table 5 – Medal A4, silver, Type II, diameter 53 mm; weight 32.4 g.

Year	Collection	Comments
1901	Daniel Parish Jr NY	Listed in Catalogue Storer (1901)
1908	ANS New York	Donated by Daniel Parish Jr.
2022	ANS New York	ANS Acc. # 0000.999.5755

²¹ (Catalogue Storer) Storer, 1901: 80.

²² *The Elder Magazine* 1908: 14.

Ekonomista Museet, Stockholm

A Van Leeuwenhoek medal of silvered bronze is present in the Ekonomista Museet in Stockholm. This museum houses the collection of the former Royal Swedish Coin Cabinet. This medal is of Type I and is very much like the bronze medal B1 in NNC. It is also clearly cast but the surface has been smoothed. It also has the same engraving referring to Virgil at the bottom of the reverse. In the Catalogue BM, it is stated that a silver cast Van Leeuwenhoek medal is present in Stockholm. The actual medal, however, is silver plated.²³



*Fig. 6 – Silvered bronze Van Leeuwenhoek medal B2. Diameter 57 mm and 57.7 g.
(Photo: Stockholm Ekonomista Museet, Inventory 3015013)*

Table 6 – Medal B3, bronze (silver plated), Type I, diameter 57 mm; weight 57.7 g

Year	Collection	Comments
1885	Stockholm	Listed in Catalogue BM (1885), Nr.508
2022	Stockholm Ekonomista Museet	Inventory number 3015013.

²³ Information provided by Martin Tunefalk, curator Royal Coin Cabinet Stockholm.

Boston Medical Library

The medal listed by Storer as in the Boston collection is now in the Boston Medical Library which houses the Storer Collection of Medical Numismatics.²⁴ This bronze medal is cast and it differs from the Type I and II medals. The portrait on this Type III medal is also realistic, like on the Type I medal, but the hair clearly differs from both this and the Type II medal. The portrait is bold like that on the Type II medals. The reverse has the Type II high towers but the engraving of these and also of the houses and trees is different. Also the engraved clouds are lacking and the motto at the bottom is placed higher than on the other two Types. The engraving of the reference to Virgil is absent. No other medal of this Type was found.



*Fig. 7 – Bronze Van Leeuwenhoek medal B3. Diameter 55 mm and - g.
(Photo: Mrs Jessica B. Murphy, Boston Medical Library)*

Table 7 – Medal B3, bronze, Type III, diameter 55 mm; weight – g.

Year	Collection	Comments
1901	Boston Collection	Listed in Catalogue Storer (1901)
2022	Boston Medical Library	Part of the Storer collection

²⁴ Information and photo of the medal provided by Mrs Jessica B. Murphy, librarian, Boston Medical Library.

British Museum, London

In the Catalogue BM, it is stated that the British Museum has a copper electrotype of the silver medal in the collection of the Royal Coin Cabinet (KPK). The present inventory number is CME2941.²⁵

Conclusion

The total number of Van Leeuwenhoek medals found in collections is seven: Four in silver, all of Type II, two Type I medals in bronze and one bronze Type III medal. The electrotype copy in the British Museum is not included in the table below.

Table 8 – The Van Leeuwenhoek medal in collections

Nr.	Collection	Dated before	Type I (bronze)	Type II (silver)	Type III (bronze)	Weight (g)
B1	NNC, Amsterdam	1867	✓			41.0
B2	Ekonomista Mus., Stockholm	1885	✓			57.7
B3	Boston Medical Library	1901			✓	–
A1	NNC, Amsterdam	1885		✓		30.0
A2	Boerhaave, Leiden	1892		✓		32.0
A3	Boerhaave, Leiden	1947		✓		33.1
A4	ANS, New York	1901		✓		32.4

Illustrations of the Van Leeuwenhoek Medal

The earliest illustration of the Van Leeuwenhoek medal can be found in a notebook made by the famous collector Andries Schoemaker (1660–1735), who was well acquainted with Van Loon. He shared his extensive collection with Van Loon, who used it to write his medal catalogues, and in turn was allowed to use Van Loon’s descriptions. His notebooks contain an inventory of his collection,

²⁵ Information provided by Tom Hockenhull, curator, British Museum, London.

with hand drawn pictures of medals and engravings taken from medal books, together with descriptions.²⁶ The drawing of the Van Leeuwenhoek medal shown in Figure 8. It is undated, but as Schoemaker sold his collection in 1720 (Appendix 2), the drawing likely was made before this date.



Fig. 8 – Drawing of the Van Leeuwenhoek medal made by Andries Schoemaker about 1716-1720

The Van Leeuwenhoek medal is illustrated in *Beschryving der Nederlandsche historipenningen*, part IV, by Gerard van Loon, which was published in 1731.²⁷ The medal catalogue by Van Loon, which was published in four parts, issued in the years 1723-1731, is a history of the Netherlands from the start of the reign of King Philip II in 1555 until the Peace of Utrecht in 1713, although the latest medals described date from 1716. All medals are illustrated by engravings, and a description and explanation of the legends is given. It is not a catalogue in the modern sense as the medals are not always in chronological order and no technical information about metal or medallist is provided. The illustrations, however, do show the actual size of the medals and are considered to be accurate representation of the actual medals.²⁸ The Van Leeuwenhoek medal is listed following a description of a medal commemorating the visit of the Russian Czar, Petrus Alexeiewicx (Peter the Great) to the Netherlands in 1697-1698. During his visit, the Czar also visited the city of Delft where Van Leeuwenhoek showed him a microscope and some of his discoveries. This serves as an introduction to a listing of some of the other famous visitors to Van Leeuwenhoek and a description of the medal. This description starts on page 223, where the medal is depicted and which page is marked 1697 in the top margin, and is concluded on

²⁶ Schoemaker, *s.d.*

²⁷ Van Loon, 1731: 223-224.

²⁸ Van Even, 1871: 209.

page 224, marked 1698. The Van Loon books are often used as references and the Van Leeuwenhoek medal is referred to as: ‘Van Loon iv 223’ and the year is given as 1697, or sometimes 1698. The correct year of issue of course is 1716.

The next illustration can be found in the 1859 publication of Hippolythe Kluyskens.²⁹ This engraving is markedly different from the one in Van Loon and clearly taken from a Type II medal.



Fig. 9 – Illustration from Van Loon, part IV page 223. Published 1731 (Medal Type I)



Fig. 10 – Illustration from Kluyskens, part II page 135. Published 1859 (Medal Type II)

²⁹ Kluyskens, 1859: 135.

The drawing made by Schoemaker, illustrated above, is another depiction of a Type I medal, although not a very accurate one. The head has the fine hair and also a line encircling the head is drawn alongside the inscription on the obverse. Such a line is also suggested, though not actually drawn, in the engraving in Van Loon. The actual difference is the polished field around the head and the unpolished one around the inscription. Also, the ‘missing’ colon in the inscription between ...**HOEK** and **REG** has been added. The reverse does have the large bees but the city towers are low. Remarkable is the small beehive caused probably by the not very distinct lower part of the beehive on the Type I medal being interpreted as water from the river in the foreground. On the right of the motto **VIRG** is shown in very small letter, like the text engraved on medals B1 and B2.



Fig. 11 – Engraving from Haaxman, page 116. Published 1875

Another engraving is present in the 1875 book by P.J. Haaxman. This engraving was clearly made from the example in Van Loon.³⁰ It shows the same naturalistic portrait on the obverse and the reverse shows the small bees and low towers. A notable difference is the line encircling the head, alongside the inscription on the obverse. Also there is an error on the reverse (**LAROR** instead of **LABOR**).

Discussion

All of the silver Van Leeuwenhoek medals in collections are of much lower weight than the original one; thus, clearly, all these specimens are copies. Also references to the medal's whereabouts after 1745 have not been found and no silver Van Leeuwenhoek medal having the correct weight was listed in any of the auctions recorded (Appendix 2). We can, however, be certain that the original medal was very much like the Type I medal illustrated by Van Loon. Also, Van

³⁰ Haaxman, 1875: IV and 116.

Loon handled the original medal presented to Van Leeuwenhoek. Already in December 1715, he sent a drawing of the medal to the Dutch historian Van Alkemade.³¹ It is likely that Van Loon was involved in the making of the medal. He was, of course, the expert on medals and the design is in accordance with the rules for ‘good medals’ as he described these in his book *Inleiding tot de heeden-daagsche penningkunde*³²: the obverse must show a portrait and the reverse should either be realistic or symbolic, or a combination. The text must be clear and factual and preferably in Latin. Citations by classic authors may be used if relevant. Another clue to the involvement of Van Loon is the portrait used on the medal. The *Send-Brieven*, letters in Dutch by Van Leeuwenhoek published in 1718, has a frontispiece containing a small oval portrait of Van Leeuwenhoek, engraved by Jan Goeree (1670–1731).³³ This portrait, copied from the illustration in the book by Dobell, is shown below.³⁴ It was argued by Van der Pas that this portrait actually dates from 1707 and thus shows Van Leeuwenhoek at the age of 73 years.³⁵ This portrait by Goeree, although three quarters facing to the left, is very similar to the left-facing portrait on the medal illustrated by Van Loon.



Fig. 12 – Engraving by J. Goeree, taken from the book by Dobell

³¹ Van Even, *Gerard van Loon letter No 12, sent to Kornelis Alkemade December 18, 1715*: 235–236.

³² Van Loon, 1717.

³³ Van Leeuwenhoek, 1718.

³⁴ Dobell, 1932: Plate XII.

³⁵ Van der Pas, 1976: 25–31.

This engraving, or a sketch used in making it, could very well have been used as a model by the medallist. Van Loon was acquainted with Goeree as he was one of the artists engaged by him to make engravings of medals for use in his *Medallic History* books. These books were already largely finished in 1716, although due to problems with the publisher, the first of the four volumes was not issued until 1723 (the last volume in 1731).

The original medal was in silver; it is likely to have been cast as only a single specimen was needed. Because of its weight, it probably was a solid cast. Who made the medal is not known. Where it was made is also unknown. It has been suggested that the medal was made in the Southern Netherlands.³⁶ Taking the involvement of Van Loon, resident of Delft, into account, this is not necessarily the case. The medal could very well have been made in the Northern Netherlands.

Presumably the original medal was used to make a small number of copies for collectors soon after it was received by Van Leeuwenhoek. The two Type I bronze medals, B1 and the silvered one B2, likely were made from the original medal, or a cast of it, as these medals are very similar to the illustration in Van Loon. A peculiarity of both medals is the engraved reference to the motto on the bottom of the reverse. The engraving clearly was already present on the medal used as a model. Van Leeuwenhoek himself could have engraved this text on his medal. One or more silver casts must also have been made as a silver copy was present in the Schoemaker collection, sold in 1720 (Appendix 2). A drawing of this medal by Schoemaker, as shown above, also is of Type I.

Remarkably none of the silver copies sold in pre-1800 sales, having weights of about 52, 46 and 42 grams, seem to have survived although one 43 gram specimen was sold in 1867 (Appendix 2). The four silver medals available in collections have a weight of 30 to 33 grams. Also, all of these medals are of Type II and clearly were cast from the same model as all design elements are in the identical location for all four medals. The small differences between the medals are due to chasing. These Type II medals have similar characteristics as a medal made for Andries Schoemaker. This medal, dated 1732, depicts a portrait of Schoemaker, 72 years old, on the obverse while the reverse is blank. The reverse of the copy shown here is engraved with a text pertaining to his death. A specimen of this medal having a different engraving, and given by Schoemaker to his daughter Johanna on occasion of his 73rd birthday on 9 October 1733, is in Teylers Museum.³⁷

That the Schoemaker medal probably was made by the same medallist as the one who made the Type II Van Leeuwenhoek medal can be seen by the coarse style of engraving, especially the hair and the use of a small incuse circle instead of a dot in the legend. It also shows an identical double rim and was made in the same

³⁶ Van der Pas, 1976: 6.

³⁷ Teylers Museum, Haarlem, inventory TMNK 01767.

way as the Type II medals: two planchets soldered inside a ring, the ring extending about 1 mm on either side above the surface of the medal. Also, the style of the engraved letters is similar. This is particularly evident in the letter **E**. These Type II medals probably were made after publication of the fourth volume of the *Medallic History* by Van Loon, describing the Van Leeuwenhoek medal, due to demand from collectors wishing to complete their sets of medals. This would date the Type II medals later than 1731. The reason for making a new medal instead of casting from an existing copy could be that these latter copies did not show enough detail (see medal B2), or that none was available for copying.



Fig. 13 – Medal of Andries Schoemaker, made in 1732 when he was 72 years of age. The reverse is engraved with a rhyme extolling his activities as a medal collector. Made on the occasion of his death in 1735. (Photo NNC Inventory PE-04650)



Fig. 14 – Medal of Andries Schoemaker, detail (left) and Van Leeuwenhoek Medal A1, detail (right)

A Modern Copy

In the collection of Museum Boerhaave in Leiden there is a bronze version of the Type II medal. This medal is illustrated below. It comes with a presentation case which carries a label stating: *Zilveren Leeuwenhoek-medaille, ontvangen door G.A. Lindeboom, van de Leeuwenhoekcommissie te Utrecht op 7 oktober 1982*. (Silver Leeuwenhoek medal, received by G.A. Lindeboom from the Leeuwenhoek Committee in Utrecht on 7 October 1982). The case also contains a note written by G.A. Lindeboom with some data concerning the medal and stating that this medal is a replica, made from an 18th-century replica in Museum Boerhaave. This copy is cast; it is missing the outer rim present on the silver specimens as the edge has been smoothed using a lathe. The diameter is about 3.8 mm less than the diameter of the silver specimens.



Fig. 15 – Bronze Van Leeuwenhoek medal (copy made in 1982)
Weight 75.44 g and diameter 49.6 mm (Museum Boerhaave Inventory v29841)

Dr G.A. Lindeboom (1905-1986) was from 1950 to 1975 professor of medicine and medical history at the Vrije Universiteit in Amsterdam.³⁸ In 1961 he became a member of the *Leeuwenhoekcommissie* (Leeuwenhoek Committee) and its chairman in 1973. The Leeuwenhoek Committee was instituted in 1931 by the *Koninklijke Nederlandsche Akademie van Wetenschappen* (Royal Netherlands Academy of Sciences) and was responsible for the publication of the letters of Van Leeuwenhoek. The 20th and final volume is expected to be published in 2023, the year in which the 300th year of the death of Van Leeuwenhoek will be commemorated.³⁹

³⁸ Van Lieberg, *s.d.*

³⁹ Information provided by Huib J. Zuidervaat, co-editor of the latest volumes of *The Letters*.

In 1981, L.C. Palm, editor of the letters, requested a quote from the medallists firm of Begeer, for delivery of one silver and twenty bronze copies of the Van Leeuwenhoek medal present in the collection of Museum Boerhaave.⁴⁰ The price of the medals requested, however, was more than f 6,000. The major part was the cost for the preparation of a mould for casting.⁴¹ Instead, it was decided to have the medals made in the workshop at the department of Leiden University where Dr A.M. Luyendijk-Elshout, also a member of the Committee, served as professor of the history of medicine. The cost of these copies was f 90.24 and f 17.90 respectively. At the 1 April 1982 meeting of the Committee it was decided to have two silver medals made and to have them engraved on the edge with the name of the recipient and the date of presentation. These medals were presented on 7 October 1982 to the retired members of the committee: Dr W.K.H. Karstens (1908-1989), from 1961 to 1973 professor of botany at Leiden University and Dr G.A. Lindeboom, for their exceptional services to the work of the Committee.⁴² In the budget for 1982, an amount of f 689.02 was earmarked for *gedenkenningen* (commemorative medals) so certainly more than only two silver medals were made. A portion of this amount would be needed to cover the cost of engraving and the boxes but a number of bronze ones could well have been made. The exact quantity made is not known. One of these bronze specimens, the one illustrated above, is present in Museum Boerhaave. Another one is in a private collection and there also is a specimen present in the archive of the Leeuwenhoek Committee.⁴³ In addition, a few specimens are kept at the Huygens Institute.⁴⁴ This institute took over the responsibility for the Leeuwenhoek Committee in 1994. No further presentation of either a silver or a bronze Van Leeuwenhoek medal is mentioned in the reports (available up to 1996) of the Leeuwenhoek Committee.

In the collection of Museum Boerhaave there is also a plaster cast of a Type II medal, probably made in relation to the bronze cast made for the Leeuwenhoek Committee, and also, surprisingly, separate plaster casts of both obverse and reverse of a Type I medal.⁴⁵

⁴⁰ Noord-Hollands Archief (NHA) Haarlem, Archief Leeuwenhoek Commissie. Correspondentie van L.C. Palm, map Begeer, Brief van 15 oktober 1981 aan Begeer.

⁴¹ *idem*, offerte van Begeer aan L.C. Palm.

⁴² NHA Archief Leeuwenhoekcommissie, verslagen. Notulen van de 61ste vergadering op 1 april 1982.

⁴³ NHA Archief Leeuwenhoekcommissie, diversen.

⁴⁴ Information provided by Huib J. Zuidervaart.

⁴⁵ Museum Boerhaave Leiden, Inventory v24400-1 and v32765.

Final notes

I would like to thank the collection registrars and curators of the museums that provided me with information about the Van Leeuwenhoek medals in their collection. Special thanks are due to Bas Völlink for providing copies from publications in the NNC library, Harco Gorter (Noord-Hollands Archief, Haarlem) for providing access to the as yet not completely inventoried archive of the Leeuwenhoekcommissie, Huib J. Zuidervaart, co-editor of *Alle de Brieven van Antoni van Leeuwenhoek* for providing information about the Leeuwenhoek Committee, Yvette Schulman (Laurens Schulman BV) for a copy of the Schoemaker manuscript and information about the (non) occurrence of the medal in recent auctions and Douglas Anderson, co-editor of *The Letters* and owner of the website [lensonleeuwenhoek](http://lensonleeuwenhoek.nl), for his valuable remarks and for correcting the text of this article.

Handling editor

L.M.A. Lennaerts

Biographical note

Henk Groenendijk (1951) studied physics and chemistry at Leiden University. He worked at KPN (formerly PTT), initially in the field of physics and chemistry research and later in process and IT development. His interest is historical medals and tokens on which topics he has published several articles.

Appendix 1 – Transcription of the inventory of the estate of Maria van Leeuwenhoek (1745). Section *Silvere Munten en Vremd Geld* (Silver coins and foreign money)⁴⁶

<i>1 Penning op't Jubileum Weegd 1 Onc. en</i>	
<i>17 Engels a 3 Gl 't Ons</i>	<i>f 5: 11: --</i>
<i>1 Antonij Ulrich 2 Onc. 18¾ Engels a 58 Sts 't Ons</i>	<i>" 8: 2: --</i>
<i>1 Dito 18 ½ Eng. A 58 Sts 't Ons</i>	<i>" 2: 13: --</i>
<i>1 anthonij Leeuwenhoek 1 Onc. 18 Eng. a 3 Gl 't Ons</i>	<i>" 5: 14: --</i>
<i>1 Maria</i>	<i>" 1: 7: --</i>
<i>Johan George, 18 ¾ Eng. A 54 Sts 't Ons</i>	<i>" 2: 10: --</i>
<i>Albertus en Elizabeth</i>	<i>" 2: 10: --</i>
<i>Christianus, 18 ½ Eng. a 54 Sts 't Ons</i>	<i>" 2: 10: --</i>
<i>1 Ferdinand</i>	<i>" 2: 10: --</i>
<i>1 maximilianus</i>	<i>" 2: 10: --</i>
<i>1 maximiliaan 1569</i>	<i>" 1: 10: --</i>
<i>Een hanoversstuk</i>	<i>" 1: 5: --</i>
<i>1 Vespazianus 18 Eng. a 58 Sts 't Ons</i>	<i>" 2: 12: --</i>
<i>Een stuk met een boom</i>	<i>" : 16: --</i>
<i>4 vremde stukjes, 7½ Engels</i>	<i>" 1: --: --</i>
<i>27 stuks vremde muntjes wege 2 Onc: 11½ Eng</i>	
<i>a 50 Sts 't Onse</i>	<i>" 6: 8: --</i>
<i>24 stukjes d^p, 1 Onc: 10 Eng: a 48 Sts: 't Ons</i>	<i>" 3: 12: --</i>

⁴⁶ Stadsarchief Delft. Notarieel archief 161.2791, archief Notaris Joris Geesteranus, 26 juni 1745 Folio 106.

Appendix 2 – The Van Leeuwenhoek Medal in Auctions

Auctions before 1900

An inventory of the Van Leeuwenhoek medals sold in auctions for the period before 1900 has been made using the database provided by Brill.⁴⁷ The Van Leeuwenhoek medals in this database are listed in the Tables below. The medals are numbered consecutively, 101 to 116 for the silver specimens, 201 to 209 for the bronze ones and 301 to 303 for those in lead. The first day of the auction is given in the format day/month/year with the month in Roman numerals. The number in the column marked Lugt refers to the number of the description of the auction catalogue in the compendium by Lugt.⁴⁸ In the next column, the auction lot number is given. In the column marked Collection, the name or names of the collectors as stated in the auction title is given. This does not mean that all items were the property of the collectors mentioned as often medals of other, anonymous collectors were included. The final column gives the weight of the medal in grams, where listed. In catalogues before ca. 1820 the weight is given in the “Pond Hollands-Mark” system and has been converted to grams using the data provided by Staring.⁴⁹

The first auction appearance of a silver Van Leeuwenhoek medal is in the 1720 catalogue of the Schoemaker collection. This auction actually did not take place as the collection was sold in its entirety to Balthasar Scott, whose collection was auctioned in 1745. In the catalogue of the Schoemaker collection, the weight of the Van Leeuwenhoek medal is given as 3 lood and 4 engels. This same medal in the Balthasar Scott collection is described as having a weight of 3 lood and 3½ engels, which is about 0.8 g less. As it certainly is the same medal, it has also been given the number 101 in the Table. As the descriptions in the auction catalogues are succinct, photos of course are absent and the weights are only accurate within about ½ gram, it is not possible to determine whether medals in different auctions are the same specimen. In the few cases where the name of the buyer is noted, this either is an auctioneer or the name is illegible. Rounding the weights to the nearest gram there seem to be at least four different specimens with approximate weights of 52, 46, 42 and 32 g. Other specimens, of course, may exist as well.

⁴⁷ Brill, Art Sales Catalogues Online.

⁴⁸ Lugt, 1938, 1953 and 1964.

⁴⁹ Staring, 1902: 92.

Table A1 – Silver Van Leeuwenhoek medals in pre-1900 auctions

Nr.	Date	Lugt	Lot	Collection	Weight
101	15/IV/1720	278	CC-22	Andries Schoemaker	52.3 g
102	6/XII/1734	445	997	Pieter Rotterdam	44.6 g
101	4/X/1745	623	2011	Balthasar Scott	51.5 g
103	15/III/1751	-	899	Philippus Serrurier ⁵⁰	41.5 g
104	1/X/1759	1062	1327	Willem Lormier	52.7 g
105	24/III/1772	2013	1904	Herman Vos	46.1 g
106	23/X/1792	4956	137	J.C. Brandt	42.3 g
107	7/III/1796	5418	526	Abraham Coenraad Schuttrup	46.1 g
108	21/XI/1845	17925	509	Anonymous	-
109	19/XII/1859	25175	4131*	(J.A. Stricker)	-
110	16/IX/1861	26373	691	Anonymous	-
111	7/X/1867	29960	610	Wed. F. van Poll - Bom	43 g
112	1/X/1877	37662	664	Anonymous	-
113	12/IV/1886	45633	101-26	Hippolyte Kluyskens	-
114	21/VI/1888	47534	98	Van der Niepoort	32 g
115	17/XII/1888	47826	1067a	A. Voomberg, A.H. Walter	32 g
116	2/IX/1889	48456	414	H.N. Tetterode	32 g

Table A2 – Bronze Van Leeuwenhoek medals in pre-1900 auctions

Nr.	Date	Lugt	Lot	Collection	Weight
201	16/X/1827	11542	1705	A. van Bijckershoek van Hoogstraten	-
202	23/X/1848	19148	2172	Hendrik Westhoff Jr	-
203	8/XI/1858	24448	2657	Jan van Dam Dirk Willemszoon	-
204	18/II/1861	26010	2360	G. Munnicks van Cleeff	-
205	30/VIII/1869	31434	1714	J. Baart de la Faille	-
206	2/XI/1869	31477	623	C.L. von Duisburg	-

⁵⁰ Van den Enden, 1751.

207	17/XII/1888	47826	1067b	A. Voomberg, A.H. Walter	-
208	30/X/1894	52882	811	J.J. Vries, Nauta van der Gijp, M. de Robiano	-
209	8/XI/1897	55671	3206	Friedrich Freiherr von Falkenhausen	-

The first auction appearance of a bronze Van Leeuwenhoek medal is in 1827. This does not mean there were no earlier specimens. Bronze medals were not listed in early auctions as these were not valuable enough to auction, certainly not as a single specimen. As an example, a silver medal, nr. 108, sold for *f* 11.25 in 1845, while a bronze one (nr. 202) three years later sold for *f* 0.50. Bronze medal number 203, sold in 1858 for only *f* 0.30 and this included another medal! The weight of the bronze medals is not specified in any of the auction catalogues.

Table A3 – Lead Van Leeuwenhoek medals in pre-1900 auctions

Number	Date	Lugt	Lot	Collection	Weight
301	15/VII/1845	17855	340	Anonymous	-
302	4/XI/1872	33416	514	J.N. Hurau	-
303	14/XI/1892	51088	1393	P.M. Beelaert	-

The lead medals probably all are later casts. I have not been able to locate a specimen.

Auctions after 1900

For the occurrence of the Van Leeuwenhoek medal in auctions after 1900 an exhaustive search was not made. The medal is also not recorded in the registry of the firm of J. Schulman in Amsterdam, the foremost Dutch numismatic auction firm during the 20th century.⁵¹ A Van Leeuwenhoek medal is also not listed in the compendium of Dutch Medals by P.H. Knijnsberg.⁵² The medal was also not included in the extensive collection of medals related to the city of Delft assembled by N.J.M. Arkesteijn and sold in 2014.⁵³ Also, searching databases with auction results and requests to dealers in medals did not produce any results. Of course, it cannot be excluded that any were sold during the last century, but it is clear that the number of occurrences is very small and that pre-1900 casts of the 1716 Van Leeuwenhoek medal are rare.

⁵¹ Information provided by Tim Poelman.

⁵² NN (Knijnsberg, 1983).

⁵³ Heritage Auctions Europe (MPO) (2014).

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