

## History of dental inlay

This is one chapter of the Encyclopedia of the History of Dentistry.

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*Initially submitted 28 March, 2023; accepted for publication 15 April 2023*

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*Please cite this article as: History of dental inlay. In: Encyclopedia of the History of Dentistry. Forrai J, Spielman AI eds. 2023. Doi: [10.32558/encyclopedia.dentistry.12](https://doi.org/10.32558/encyclopedia.dentistry.12); [10.17107/KH.2023.26.34](https://doi.org/10.17107/KH.2023.26.34)*

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## Abstract

An inlay is a special filling that fits exactly into the tooth cavity, filling cast from precious metal-gold or porcelain. Inlays have a relatively short history.

**Keywords:** prosthodontics, dental decay, inlay, cavity, restoration, walrus bone

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Inlays have a relatively short history. It appeared in 1834 in Joseph Calmann Linderer's work *Lehre von den gesammten Zahnoperation (Instructions for all dental operations)* (1). Linderer termed a "veneer filling" a walrus bone round or square peg forced into a cavity using a small hammer and retained with fish-glue cement. (See figure)

The first porcelain inlay was the work of Edward Maynard of Washington in 1857 (2). He cut shapes from porcelain teeth that fit a precisely prepared cavity and secured it in place with gold foil. Subsequently, better-adhering gutta-percha or cement secured the inlay. The gold inlay became a method of choice in 1907, only after the precision casting of gold using the centrifugal casting machine was invented by William H. Taggart (3).

The wax model created in situ or based on an impression was embedded and cast in gold. The technique, literally and figuratively, was the "gold" standard of inlay preparation until less technique-sensitive and cheaper methods took over later in the 20th century.

## References

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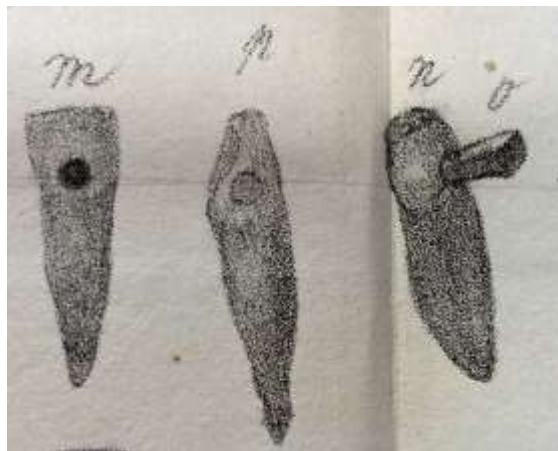


Figure 1. Walrus tusk peg shaped to fit a round or square cavity. The first attempt to use a prefabricated filling material to fill a cavity. Image taken from Linderer, 1834.



Figure 2. Various inlays used as educational tools in 1935. When prepared for patients, they were exclusively made of gold and would last decades.