

UNITED STATES PATENT OFFICE.

GUSTAV JÜTERBOCK, OF BERLIN, GERMANY.

AMALGAM FOR DENTISTS' USE.

SPECIFICATION forming part of Letters Patent No. 485,280, dated November 1, 1892.

Application filed January 4, 1892. Serial No. 417,007. (No specimens.)

To all whom it may concern:

Be it known that I, GUSTAV JÜTERBOCK, dentist, of Berlin, in the Kingdom of Prussia, Germany, have invented an Improved Amalgam for Dentists' Use; and I do hereby declare the nature of my invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement.

10 My invention relates to a new and improved method of manufacturing amalgam for dentists' use; and it consists in rolling the employed alloy into very thin sheets and in depositing thereafter a layer of gold on the
15 same by means of an electric current.

The amalgams used by dentists for the purpose of filling teeth are composed, as is well known, of an alloy of silver and tin, to which an addition of gold and platinum or of either
20 of these metals is made in order to improve the quality of the amalgam. When required to use the latter, the mentioned alloy, which is sold in filings or chips, is dissolved in mercury and may then be easily entered into the
25 holes of the teeth, as it forms a very plastic mass, whereafter it hardens very quickly, and the whole manipulation is thus performed in a very short time.

The filling of teeth made in the described
30 manner is not very durable and therefore largely defective on account of the impossibility of preventing the admixture of iron, dust, and the like in the described method, and also owing to the fact that the filings are
35 more or less liable to be oxidized, whereby the homogeneousness of the filling-amalgam is impaired. The mentioned noxious admix-

tures are necessarily made in the course of the manufacturing process as it is in use at present, as will be apparent on considering
40 that small particles of dust and dirt adhering to the tool employed for cutting the alloy into small pieces and also small particles of metal detached from the tool itself will be mixed with said alloy.

The absolute purity of the amalgam is secured in my improved method by rolling the alloy forming one of the ingredients of said amalgam into thin sheets and by electroplating thereafter the sheets with a strong layer
45 of pure gold, whereby the alloy is also protected from oxidation.

As pure gold has great affinity with mercury, the layer of gold covering the sheet of alloy is readily dissolved in mercury, and the
50 alloy itself amalgamates very rapidly.

In order to be made more convenient for use, the gilded sheets may be cut into small pieces and kept in bottles.

Having thus fully described the nature of
60 my invention, what I desire to secure by Letters Patent of the United States is—

The method of manufacturing a gold-covered alloy, consisting in rolling an alloy of silver and tin into thin sheets and forming on
65 the same a galvanic deposit of pure gold, for the purpose as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GUSTAV JÜTERBOCK.

Witnesses:

FRITZ SPERLING,
R. HERPICH.