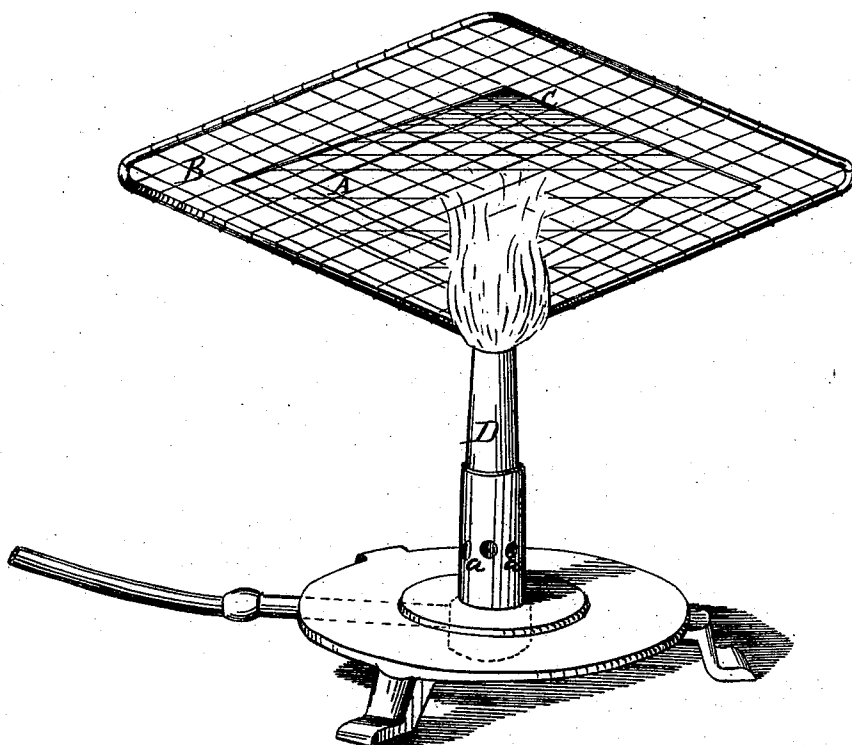


R. S. WILLIAMS.

MANUFACTURE OF DENTAL-FILLING.

No. 172,811.

Patented Jan. 25, 1876.



Witnesses:

Chas. Nide
H. L. Matten

Inventor:

Richard S. Williams
per J. M. [Signature]
Atty

UNITED STATES PATENT OFFICE.

RICHARD S. WILLIAMS, OF NEW YORK, N. Y.

IMPROVEMENT IN AND THE MANUFACTURE OF DENTAL FILLING.

Specification forming part of Letters Patent No. **172,811**, dated January 25, 1876; application filed November 15, 1875.

CASE A.

To all whom it may concern:

Be it known that I, RICHARD S. WILLIAMS, of the city, county, and State of New York, have invented a new and useful Improvement in Foil for Dental Purposes; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

This invention is in the nature of an improvement in dental foil; and the invention consists in a dental foil with a film of carbon deposited upon its surface, and also in the apparatus hereinafter described for depositing the carbon on such foil.

In the accompanying sheet of drawings the figure represents a perspective view of apparatus for carrying out my invention.

Dentists require for their use two kinds of foil, one of which is known as hard foil—that is, foil that has been annealed, so that the surfaces, when brought in contact, readily adhere; therefore, when the foil is folded and rolled by the dentist preparatory to using it, this tendency to adhere or stick together renders the roll hard or stiff to some extent.

The other kind or quality of foil used by dentists is known as soft foil, the characteristics of which are the opposite of those of the hard foil, so that it may be folded and rolled between the fingers or otherwise with facility, and without becoming hard or stiff.

Heretofore, non-cohesive or soft foil has generally been made by imperfectly refining, and by leaving traces of silver, copper, and iron, which cause it to be somewhat stiff and liable to discoloration in the mouth, or in other ways known only to individual manufacturers.

Now, to produce a foil for dentists that can

be absolutely pure, and yet, even when freshly annealed, not stick at all, or only slightly, when rolled up or manipulated, I take the sheet of foil A, place it upon a wire-gauze, B, and, with the aid of any suitable flame, cause a slight deposit of fine carbon upon the surface of the foil.

To prevent the ascending current of heat from the flame from displacing the foil when laid on the gauze, I place a sheet of mica, C, upon it.

While the flame from any suitable lamp or burner may be used for depositing the carbon, I prefer to use the well-known Bunsen gas-burner, as shown at D in figure, for with a burner of this description the amount of carbon to be deposited may be readily regulated by stopping up one or more of the air-passages *a* of the burner. The less air admitted the greater will be the deposit of carbon, and vice versa.

I do not wish to confine myself to the particular process hereinbefore described for depositing the carbon upon the surface of the foil, since that may be done in many other ways; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. Dental foil with a film of carbon deposited thereon, as a new article of manufacture.

2. The apparatus hereinbefore described for preparing dental foil, consisting of a Bunsen gas-burner, wire-gauze, and sheet of mica, constructed and arranged as shown and described.

RICHD. S. WILLIAMS.

Witnesses:

H. L. WATTENBERG,
G. M. PLYMPTON.