

No. 864,465.

PATENTED AUG. 27, 1907.

J. HOOD.
DENTAL FILLING.
APPLICATION FILED MAR. 28, 1907.

Fig. 1.

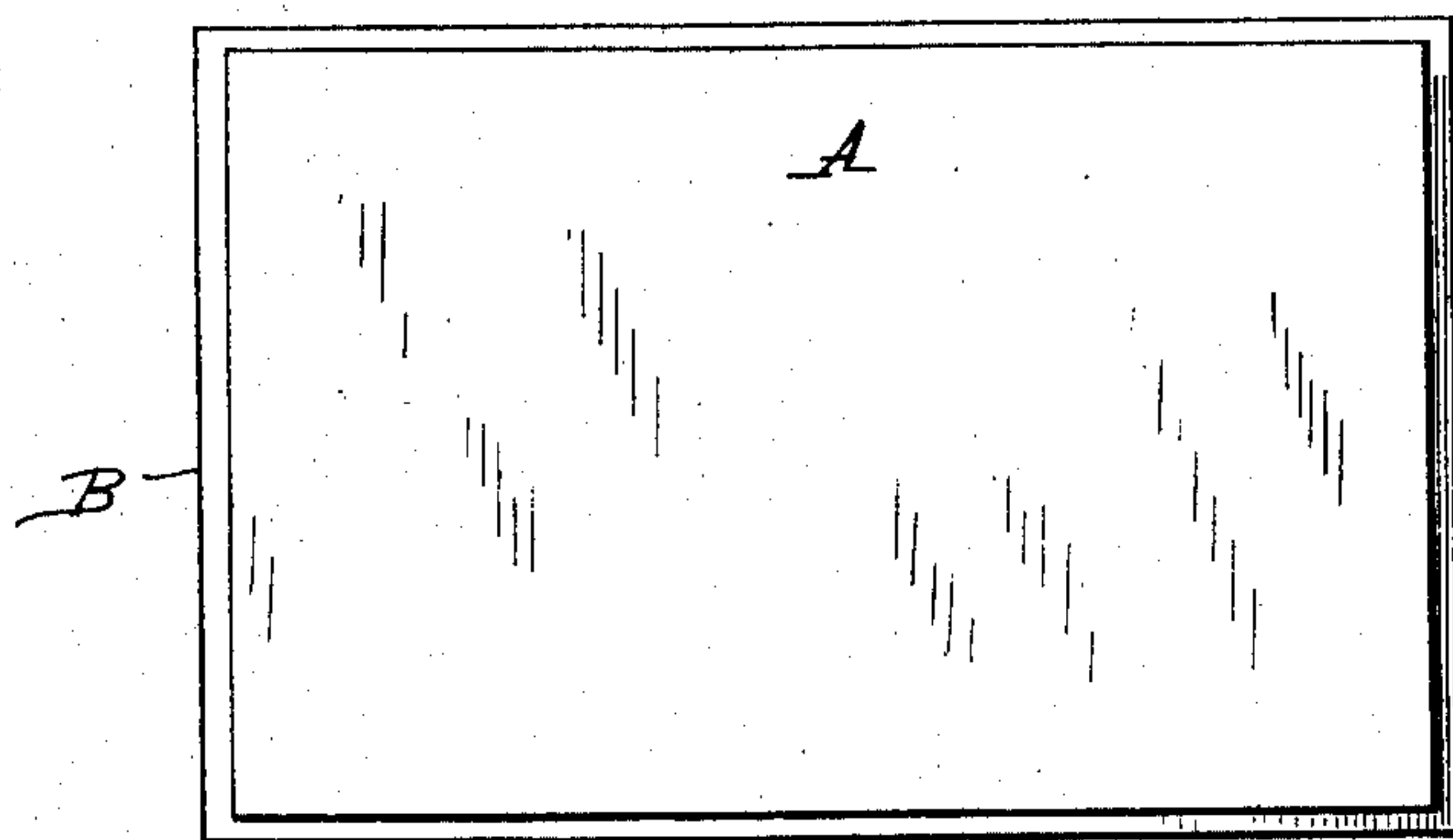


Fig. 2.

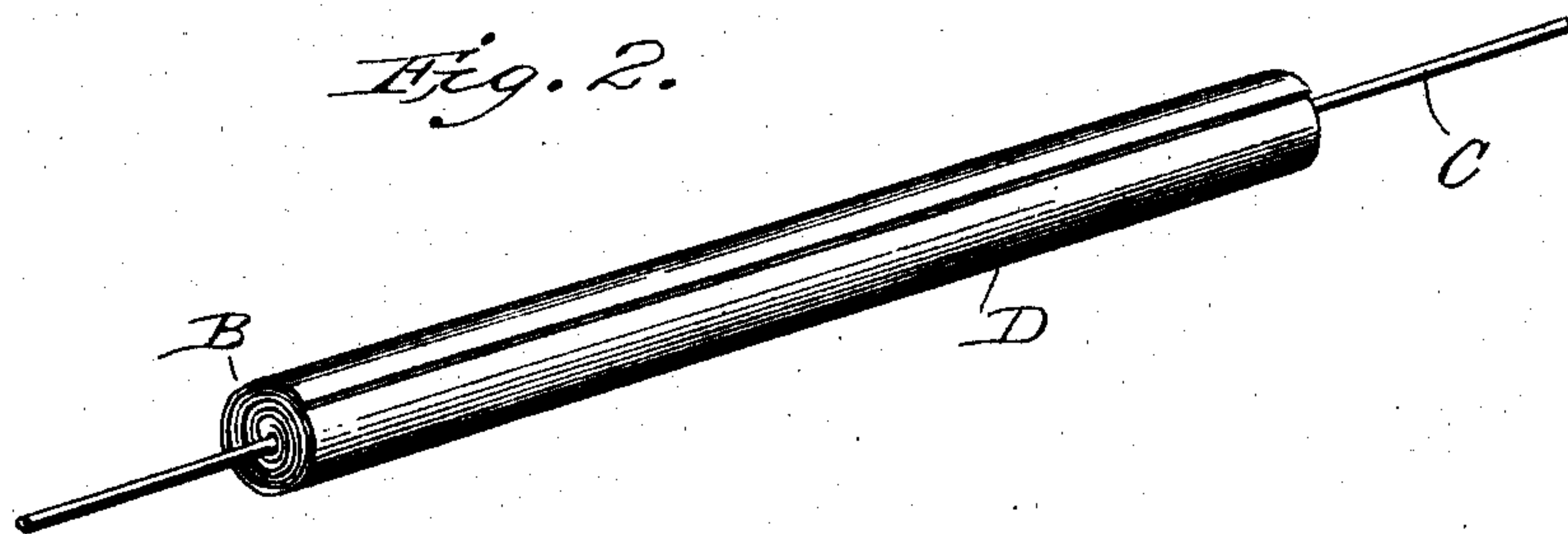


Fig. 3.

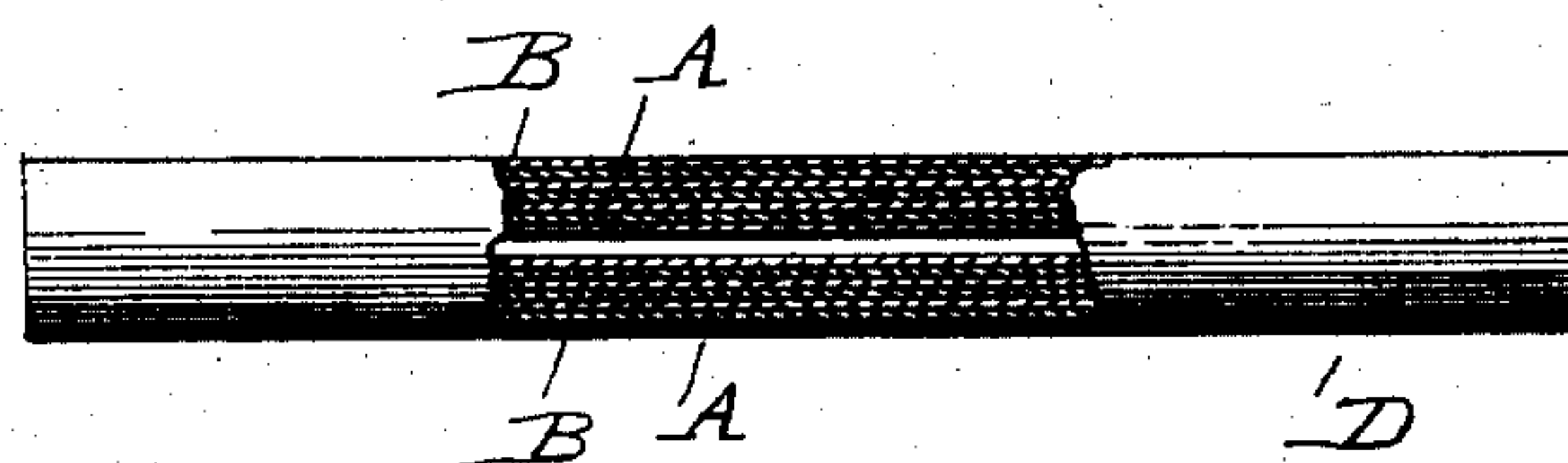


Fig. 4.

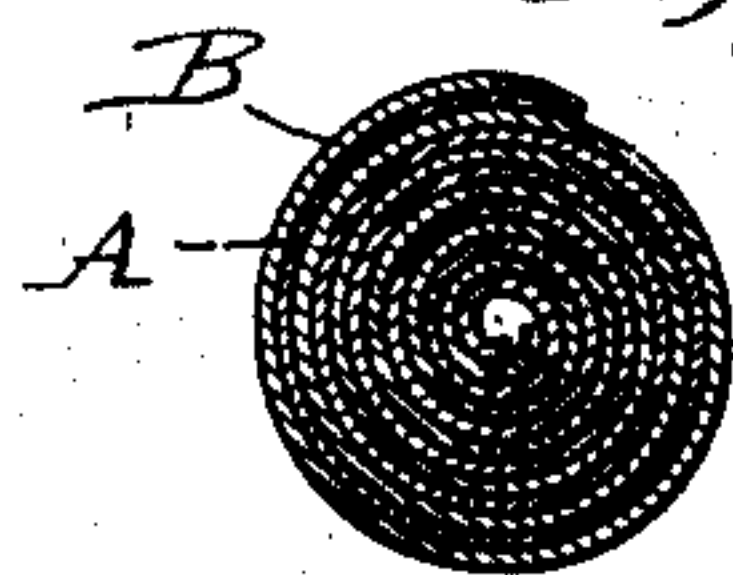
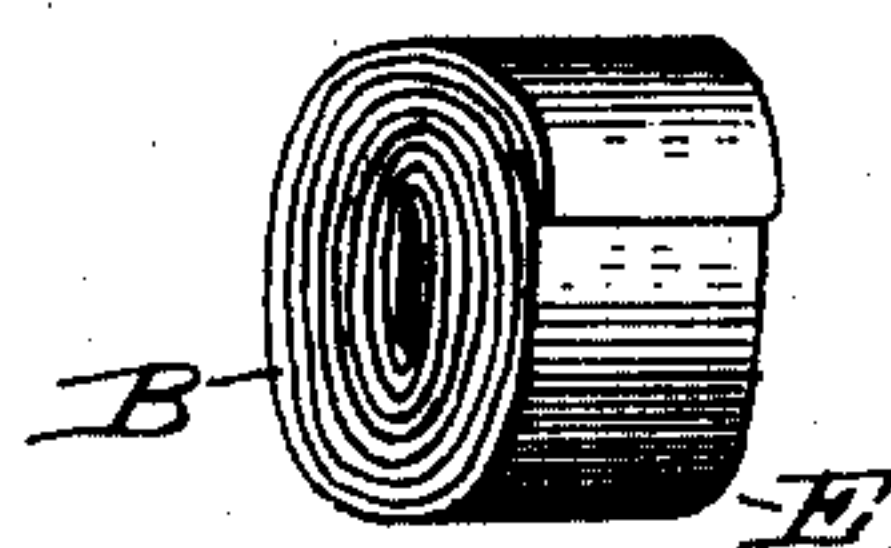


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN HOOD, OF BOSTON, MASSACHUSETTS.

DENTAL FILLING.

No. 864,465.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed March 28, 1907. Serial No. 365,026.

To all whom it may concern:

Be it known that I, JOHN HOOD, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Dental Fillings, of which the following is a full, clear, and exact description, such as will enable those skilled in the art to which it appertains to produce the same, reference being had to the accompanying drawings, forming part of this specification.

In the manufacture of metal filling used by dentists in repairing teeth, where it is desired to cheapen the product, it is customary either to form a poriferous alloy of fine and base metals, or to coat a sheet of base foil on both sides with fine foil. The process of forming the poriferous alloy is not only difficult and costly, but the resulting product is apt to be too dense and stiff for easy manipulation; also the color of the alloy remains the same no matter how much it is worked by the tool of the operator and consequently no variation in the appearance of the filling can be obtained. When the filling is in the form of the coated foil, it is not easily worked by the tool of the operator in packing and finishing the cavity. In using both the alloy and the sheet foil there is considerable waste of material and a consequent increase of expense.

The invention in the present instance has for its object the provision of a filling that will be porous to a high degree and, therefore, easily worked, one in which the color of the filling can be varied through the working of the same to meet the requirements, and one in which there will be comparatively little waste in its use. It consists of the novel product hereinafter described and claimed.

In the drawings, in which similar reference characters designate corresponding parts, Figure 1 is a plan view of a sheet of base foil placed on a sheet of fine foil preliminary to the rolling operation. Fig. 2 is a perspective view showing the sheets of foil wound upon a core. Fig. 3 is a side elevation, partly in section, showing the roll with the core withdrawn. Fig. 4 is a cross section through the roll. Fig. 5 is a perspective view of the finished product in the form of a pellet.

In the manufacture of the product in the present instance it is preferred to use gold and silver foils, but other comparatively fine and base foils, suitable for the purpose, may be used. In preparing the filling a sheet of silver foil A, say of No. 3 thickness, is placed on a sheet of gold foil B of a like thickness. The superficial dimensions of the gold foil are greater than those of the silver foil so that the edges of the former project beyond the edges of the latter. The foils so placed are

then wound upon the core C with the gold on the outside to form the elongated roll D. By reason of the projecting edges of the gold foil the silver foil is completely covered by the former. The core C, which may have the diameter of an ordinary knitting needle, is then withdrawn leaving the roll with a hollow core. In this way a hollow elongated cylinder is produced of interposed convolute layers of gold and silver foils with the former completely covering the latter. Owing to the adhesive property of the gold the convolutions cohere to form a composite body. The elongated roll is then subdivided to form the comparatively short cylinders or pellets E. When the cut is made to separate a pellet from the roll the edges of the gold formed by the cut, owing to the greater ductility of that metal, are drawn over the edges of the silver so that the resulting pellet has no exposed silver. By varying the diameters of the rolls and the lengths of the subdivisions the sizes of the pellets can be varied. In this way filling is produced in which the gold completely covers the silver and the latter is thereby protected against chemical action and consequent discoloration. When the pellets are packed into a cavity the envelop of gold, owing to the adhesiveness of the latter, they strongly cohere. The pellet, owing to its laminated structure, has a high degree of porosity and this, together with its hollow core, permits easy manipulation of the product during the filling process.

Ordinarily the filling will have the color of pure gold. Sometimes it is desirable to reduce this color to more nearly agree with the natural color of the teeth. In finishing the filling the gold envelop can be worked down to blend with the silver so that a coloring can be produced varying from pure gold to at least ten carat without destroying the gold envelop. As the pellets are furnished in various sizes, they can be selected by the operator to meet the requirements and to avoid waste.

Having thus described my invention, what I claim and desire to secure by Letters Patent is,

1. A new article of manufacture, a dental filling comprising a pellet formed of convolute and interposed layers of fine and base metals with the foil of fine metal covering the edges of the foil of base metal.

2. A new article of manufacture, a dental filling comprising a pellet formed of convolute and interposed layers of gold and silver foils with the gold foil covering the edges of the silver foil.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOHN HOOD.

Witnesses:

GEORGIA H. RILEY,
ALICE G. NIXON.