

No. 774,253.

PATENTED NOV. 8, 1904.

J. E. KEEFE.
TOOTH CLEANER.

APPLICATION FILED APR. 15, 1903.

NO MODEL.

Fig. 1.

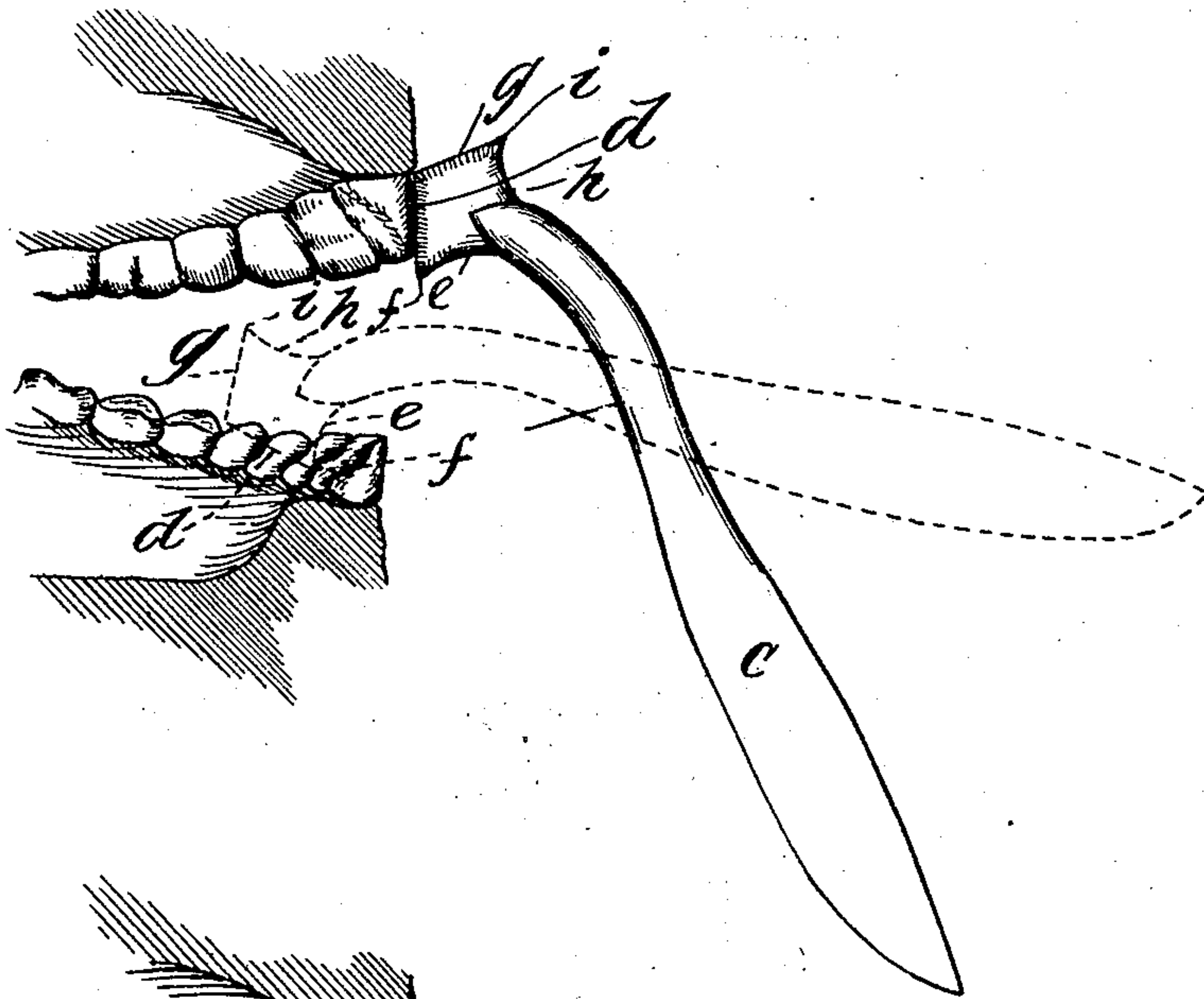


Fig. 2.

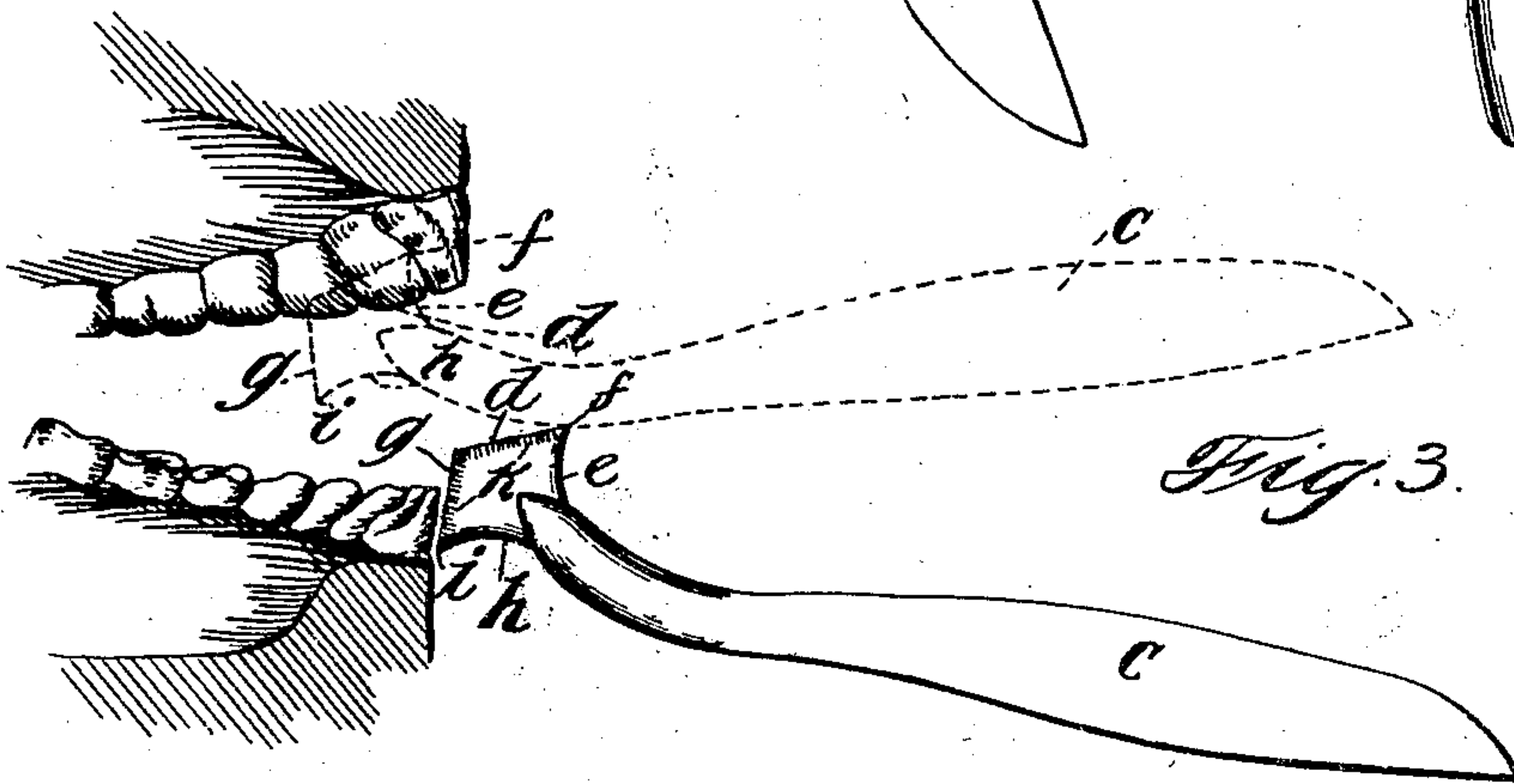
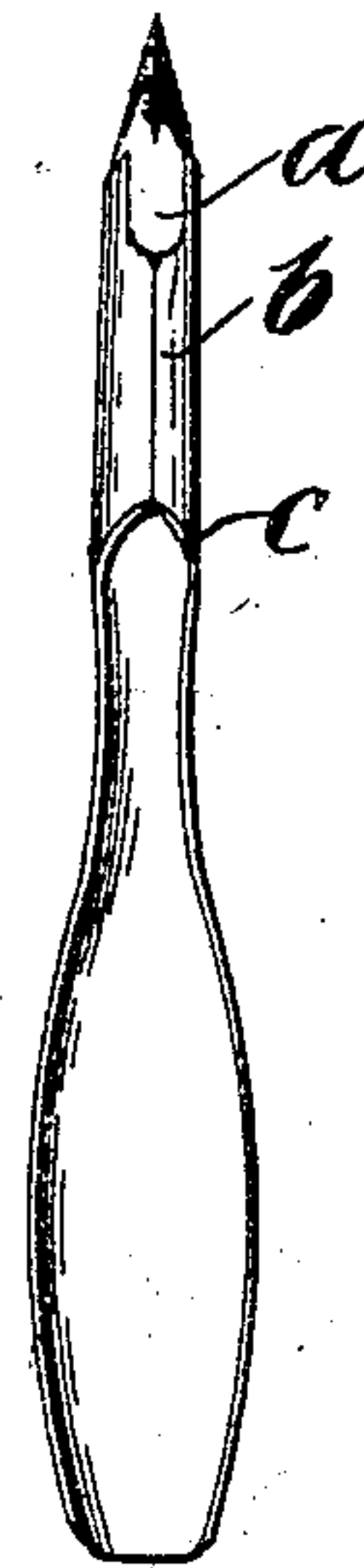


Fig. 3.

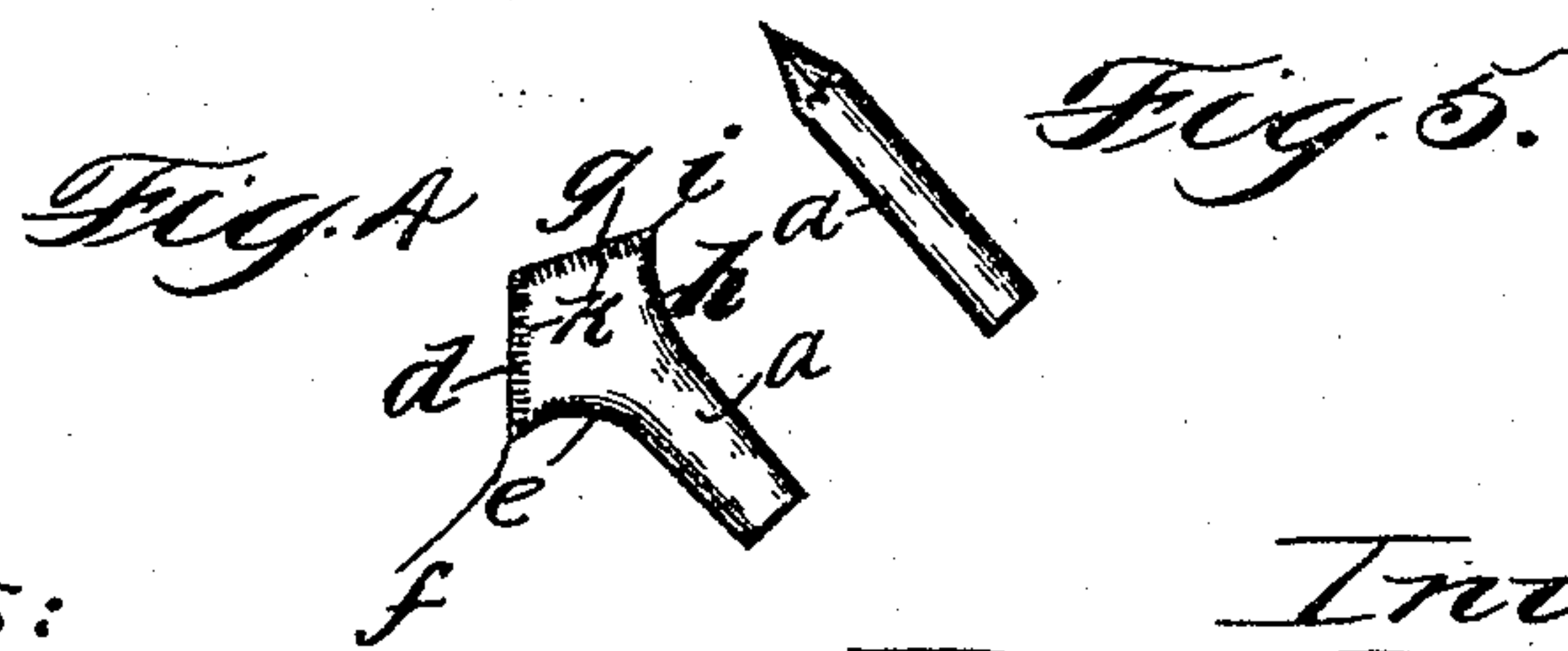


Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES E. KEEFE, OF CHICAGO, ILLINOIS.

TOOTH-CLEANER.

SPECIFICATION forming part of Letters Patent No. 774,253, dated November 8, 1904.

Application filed April 15, 1903. Serial No. 152,716. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. KEEFE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Tooth-Cleaners, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to tooth-cleaners, and has for its purpose the provision of an improved form of tooth-cleaner that may be used by people upon their own teeth and which is adapted to reach those parts that have not hitherto been well reached by tooth-brushes.

My invention has for its objects, first, the provision of a cleaner that will find effective entry between the teeth at the front; second, the provision of an improved cleaner that will find effective entry between the teeth at the rear; third, the provision of an improved cleaner that will enable both the fronts and the backs of the teeth to be readily cleaned, and, fourth, to provide in the cleaner an improved cleaning-surface, which is also desirably designed to afford a lodging-place for the dentifrice.

The first object of my invention is realized by the provision of a wedge-shaped device that is desirably made of rubber or equivalent pliable material, this device having a continuation preferably formed in a separate part of metal, which continuation or handle is angularly disposed with respect to the edge of the wedge, so that the tool may be conveniently applied to the teeth.

The second object of my invention is accomplished by providing the tool with a sharp corner that may be inserted between the teeth and moved up and down to dislodge any foreign matter between the same upon the inside of the mouth, the tool or cleaner and the handle supporting the same being so relatively disposed and shaped that ample clearance is afforded between the handle and the teeth and the body portion of the cleaner and the teeth to enable the cleaner to effectively perform this function.

The third object of my invention is accom-

plished by so organizing the instrument as to enable it to perform the functions set forth in the description of the first two objects, to which end the cleaner is preferably in the form of a double wedge whose entering edges are angularly disposed, the extreme ends of these edges constituting such continuations of the sides of the cleaner as to afford cleaning corners for the backs of the teeth.

The fourth object of my invention is preferably accomplished by serrating or notching those portions of the cleaner that are designed to have immediate contact with the teeth, which serrations or notches serve not only somewhat the function of the file in removing foreign substance from the teeth, but also afford a lodging-place for the dentifrice that is desirably applied to the cleaner before the cleaner is applied to the teeth.

I will explain my invention more fully by reference to the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved form of cleaner in the act of being applied to the outside or front of some of the upper teeth, the application of the instrument to the inside of the lower teeth being indicated by dotted lines. Fig. 2 is a view in elevation of the instrument. Fig. 3 is a view illustrating the instrument in full lines as applied to the outside of the lower teeth, the application of the instrument to the inside of the upper teeth being indicated by dotted lines. Fig. 4 is a view in elevation of the cleaner removed from its handle. Fig. 5 is a view of the device in Fig. 4 at right angles thereto.

Like parts are indicated by similar characters of reference throughout the different figures.

The cleaner-head proper is preferably formed of a substantially flat head, of rubber or equivalent pliable material, having tapering edges that may be applied to the teeth without danger of injuring the same and which by reason of its flexible tapers will find ready access to the spaces between the teeth. This cleaner is preferably formed with a short stem *a*, which is designed to be held clamped by the folded parts *b* of a handle *c*, which is desirably made of sheet metal, as aluminium.

In order that the tool may be readily adapted to cleaning the front portions of the upper teeth, the stem *a* forms an angle with the wedge edge *d*, the handle *c* partaking of the same general direction as the stem *a*, so that the tool may be conveniently applied to front parts of the upper teeth. The edge *d* forms with a curved angular continuation *e* of the stem *a* a point *f*, the edges *d* and *e* defining an acute angle. This point *f* is adapted for convenient application to the rear of the upper teeth, as indicated by dotted lines in Figs. 1 and 3. To apply to the rear of the lower teeth, the position of the cleaner need only be slightly shifted, as indicated in Fig. 1 in dotted lines. The front portions of the upper teeth and rear portions of the lower teeth may be cleaned without shifting the position of the handle within the hand. When the front portions of the lower teeth are to be cleaned, the position of the handle is desirably reversed in the hand, as indicated in Fig. 3, when another wedge edge *g* is brought into service. This wedge edge forms an acute angle with the inclined or curved edge portion *h* leading from the stem *a* and point *i*, which may be serviceable for cleaning at the rear of the teeth.

In order that the cleaner may be more effective and in order that more cleaning material or dentifrice may find ready lodging-place upon the wedge edges, the said edges are serrated, as indicated at *k*, these serrations being desirably angularly disposed with respect to the wedge edges and extending closely thereto. The edges *e*, *f*, *g*, and *h* preferably form the sides of a quadrilateral, making the cleaner, with its stem, substantially arrow-shaped, so as to afford the corners *i* and *j* for the purpose specified and whereby the tool may be readily used at the front of the teeth. The edges *d* and *g* are thin, the body portion or flat parts of the arrow-shaped cleaner being tapered toward these edges.

While I provide the stem *a* with a separately-formed handle, I do not wish to be limited to this structural characteristic.

It is obvious that departures may readily be made from the precise embodiment of the invention illustrated without departing from the spirit of the invention, and I do not, therefore, wish to be limited to the precise construction shown; but,

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A tooth-cleaner consisting of a flat head having tapered edges, portions of which are arranged at angles to each other and a handle extending from the head in the plane of the sides thereof.

2. As a new article of manufacture, a tooth-cleaner formed of a wedge-shaped head of pliable material formed with tapered edges and having a handle portion extending at an angle to the wedge edge, the edge of the wedge-shaped head between the wedge edge and the handle portion forming an angle with the wedge edge, substantially as described.

3. As a new article of manufacture, a tooth-cleaner formed of a substantially flat wedge-shaped head of pliable material and having a handle portion extending at an angle to the wedge edge, the edge of the wedge-shaped head between the wedge edge and the handle portion forming an angle with the wedge edge, and being also angularly disposed with respect to the main direction of the handle portion, substantially as described.

4. As a new article of manufacture, a tooth-cleaner formed of a substantially flat wedge-shaped head of pliable material having a handle portion forming with the wedge edge an angle, the edge of the wedge-shaped head extending between the wedge edge and the handle being angularly disposed with respect, both to the handle and the wedge edge, substantially as described.

In witness whereof I hereunto subscribe my name this 6th day of April, A. D. 1903.

JAMES E. KEEFE.

Witnesses:

MAY HILL,
LENA HAYWARD.