

No. 815,534.

PATENTED MAR. 20, 1906.

H. S. HOPPER.

TOOTHPICK AND METHOD OF FORMING THE SAME.

APPLICATION FILED JUNE 29, 1905.

FIG. 1.

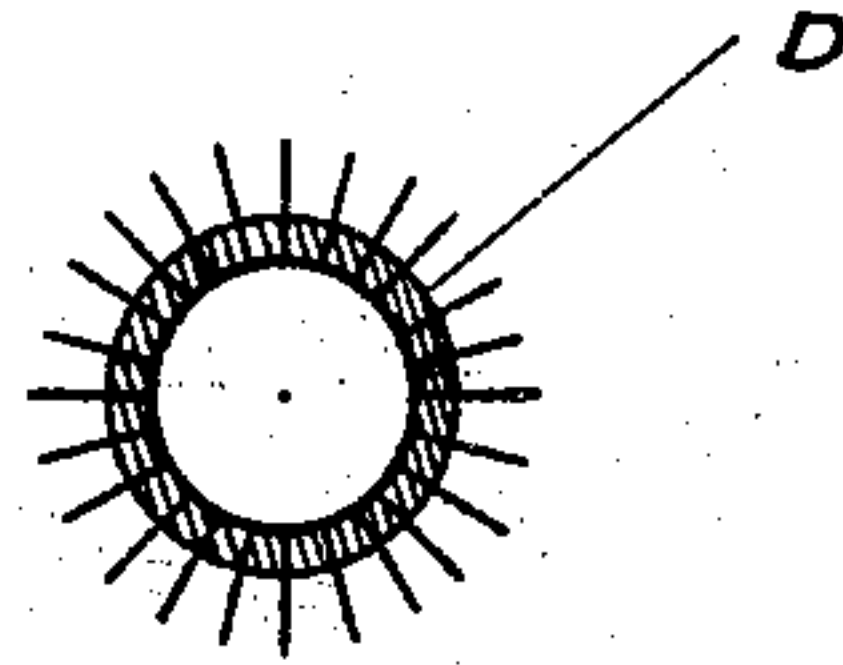


FIG. 2.

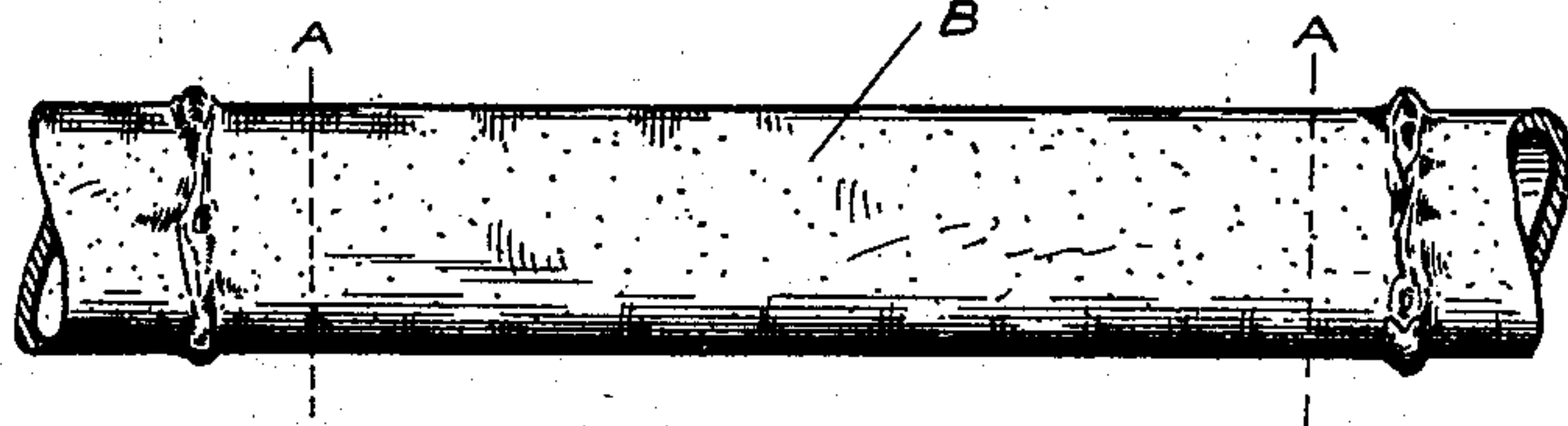


FIG. 3.

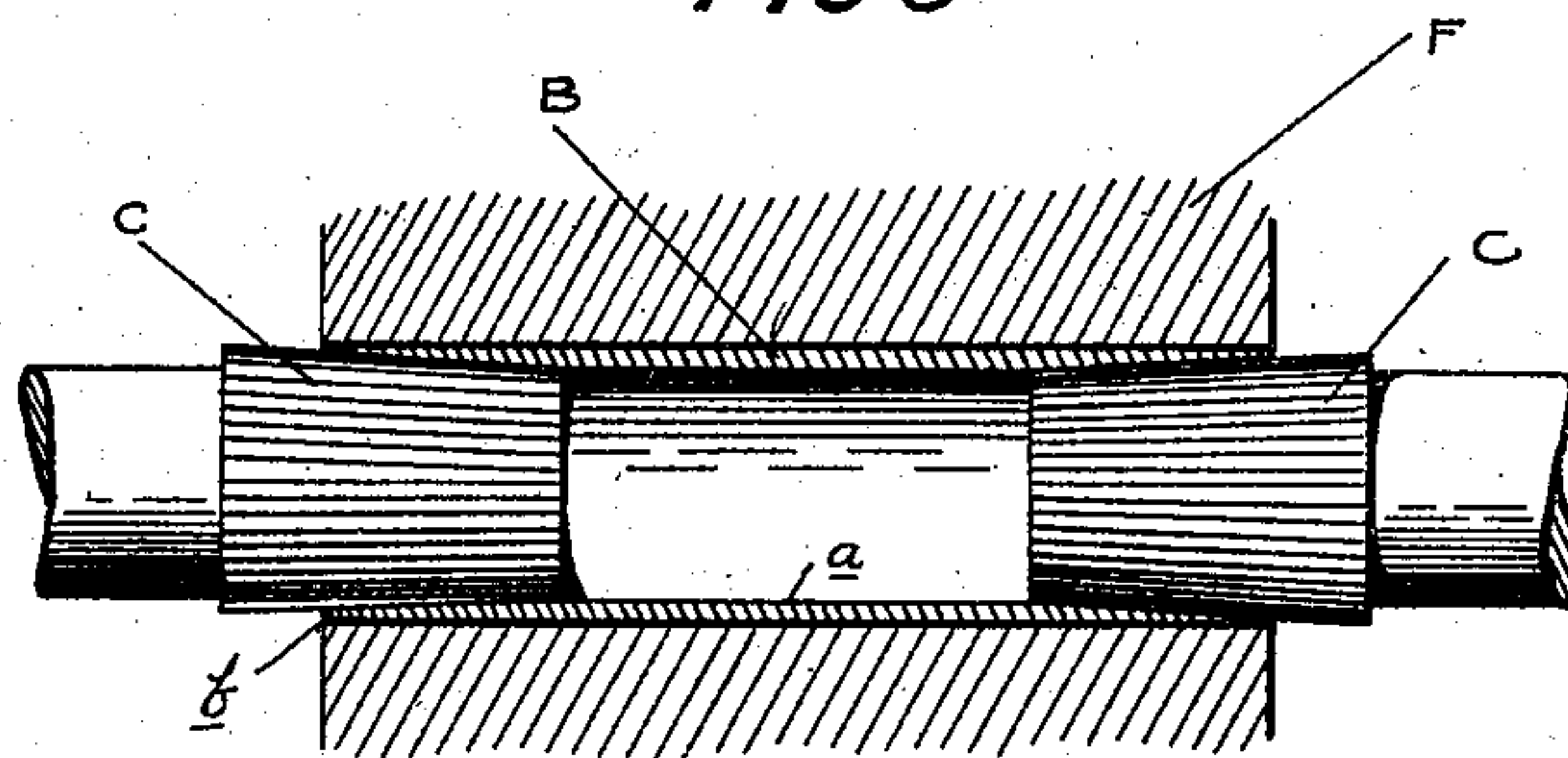


FIG. 4.

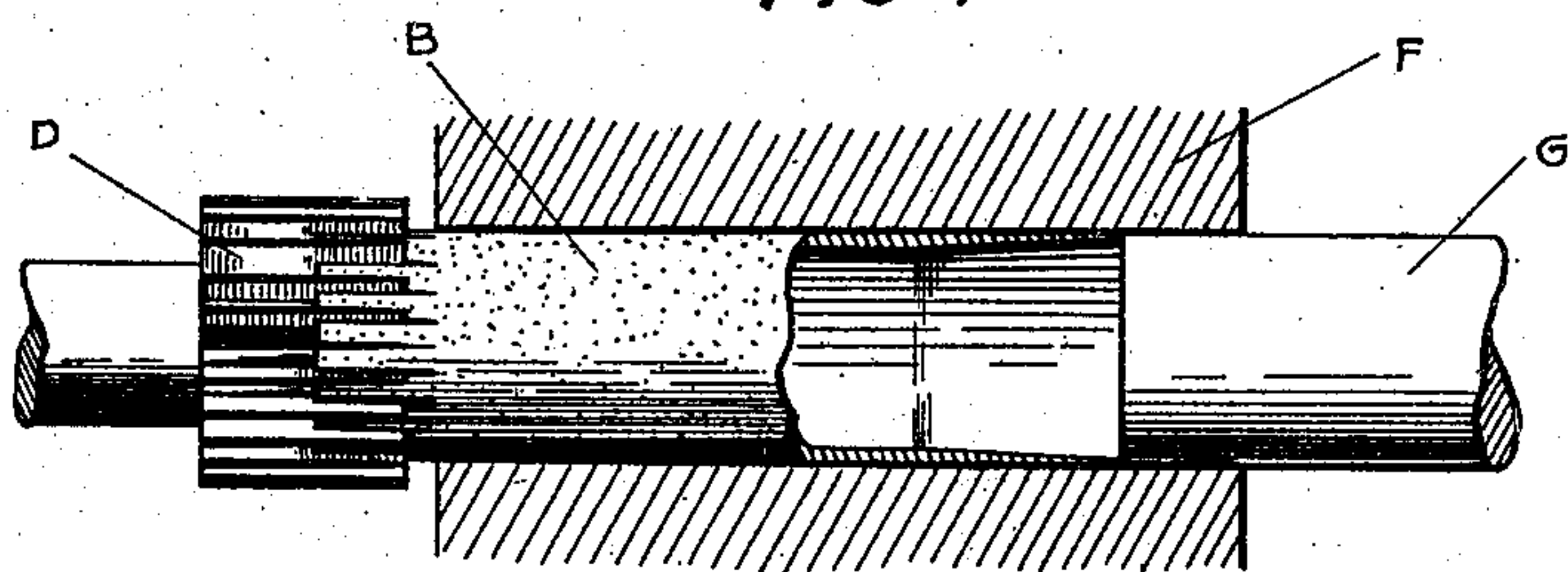
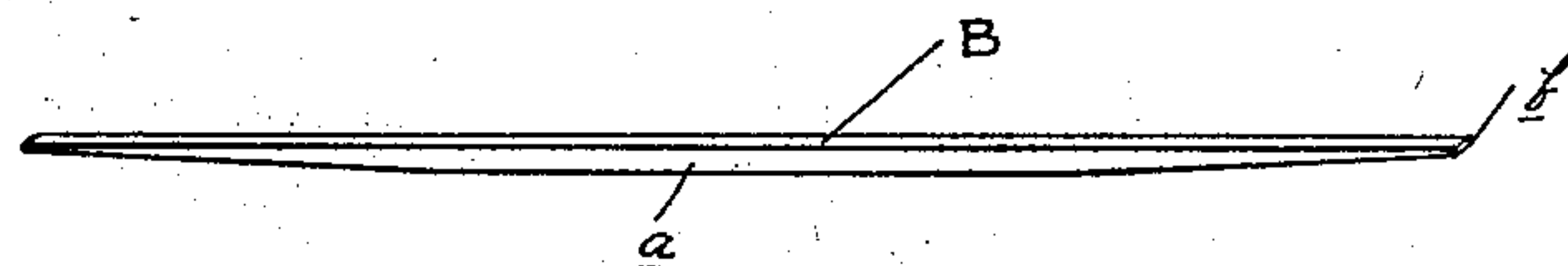


FIG. 5.



WITNESSES

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TOOTHPICK AND METHOD OF FORMING THE SAME.

No. 815,534.

Specification of Letters Patent.

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Application filed June 29, 1905. Serial No. 267,498.

To all whom it may concern:

Be it known that I, HENRY S. HOPPER, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Toothpicks and Methods of Forming the Same, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to the manufacture of toothpicks, and has for its special object the obtaining of a construction of a flexible and tenacious wooden pick having a hardened point.

The invention consists in the novel construction of the toothpicks, and, further, in the method of manufacturing the same.

In the drawings, Figure 1 is a cross-section through a chisel used in the process. Figs. 2, 3, and 4 are diagrams illustrating the successive steps in the process of manufacture, and Fig. 5 is an elevation of one of the completed toothpicks.

In the present state of the art of manufacturing wooden toothpicks the picks are formed from splints of wood cut from comparatively large timber. The fiber of the wood is therefore of uniform character throughout the splint, and the sharpened points are very brittle and frequently break off between the teeth.

It is one of the objects of the present invention to obtain a construction of pick which is strong and flexible by cutting the same from an annular growth in which the portion forming the point of the pick is harder and tougher than the body portion. The material which I preferably employ for this purpose is obtained from cane, reeds, or other similar tubular growths. These are formed with an outer wall or skin of very hard tough fiber within which is a growth of softer fiber. Thus by splitting the annular growth radially splints are obtained having one side of hard fiber and the other side of softer material, and by sharpening the splints from the softer side to the harder the points will be formed entirely of the hard material.

In the manufacture of toothpicks of this character I preferably employ the method diagrammatically represented in Figs. 2, 3, and 4. The first step is to cut the cane or reeds into suitable lengths, removing the knots, and this may conveniently be done, as shown in Fig. 7, by the use of saws on the dotted lines A of Fig. 2. Separate saws are

set so as to cut from the cane between the knots sections B of suitable length to form the toothpicks. These sections B are next reamed out by suitable reams C at opposite ends, as illustrated in Fig. 3, so as to taper in longitudinal section from the full thickness of the growth a at the center to a thin edge b at the end. The sections are then split radially, preferably by suitable chisels D, into splints of suitable length, each of which is provided with a chisel-point having its edge formed of the hard fiber, as shown in Fig. 5. During the operation the sections are preferably held in blocks F in cylindrical bores, and for splitting the sections they may be forced out of the bores by the plunger G against the chisel D, as shown in Fig. 4. However, I do not wish to limit myself to any specific means for holding, reaming, or splitting, as any means of so doing is within the scope of my invention. The operations of sharpening and splitting the cane-sections are preferably automatically accomplished in a single machine, such as forms the subject-matter of my application, Serial No. 242,965. The toothpick is preferably completed by being smoothed by sanding or any suitable means.

What I claim as my invention is—

1. A toothpick comprising a splint severed from an annular growth of fiber, and having its point tapered to one surface of said growth.

2. A toothpick comprising a splint severed from an annular growth of fiber of varying tenacity in different portions of its thickness, the point of the pick being tapered toward one face of the annular growth.

3. A toothpick comprising a splint, radially severed from an annular growth of fiber, and having its point tapered from the inner to the outer face of said growth.

4. A toothpick comprising a splint, radially severed from a tubular reed and tapered toward the outer surface of the reed to form a point.

5. A toothpick comprising a splint, severed from an annular growth of fiber, the texture of which is of varying toughness, the point of the pick being tapered outwardly toward the tougher surface of the fiber.

6. The process of forming toothpicks, consisting in first beveling a tube formed from an annular growth of fiber, to sharpen the edge of the end thereof, and in then radially severing said tube into splints.

7. The process of forming a toothpick, consisting in first cutting a tube of suitable length

from an annular growth of fiber, and then beveling the end of said tube from the inner to the outer face thereof to form a sharpened edge, and in then severing the tube radially
5 into splints.

8. The process of forming toothpicks which consists in cutting reeds to form short tubes, severed between the knots, and in then beveling the edge of said tubes to form a sharp-

ened edge and then radially severing the 10 same into separate splints.

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

HENRY S. HOPPER.

Witnesses:

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B. T. STOAKLEY.