

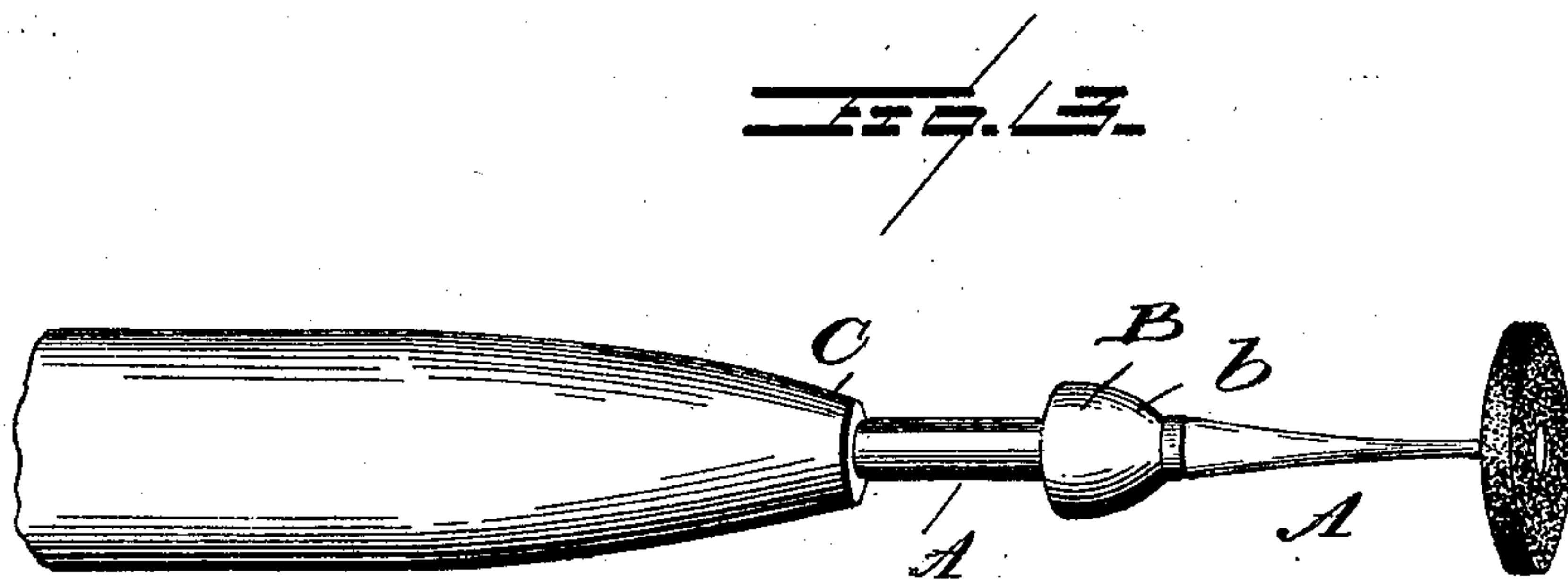
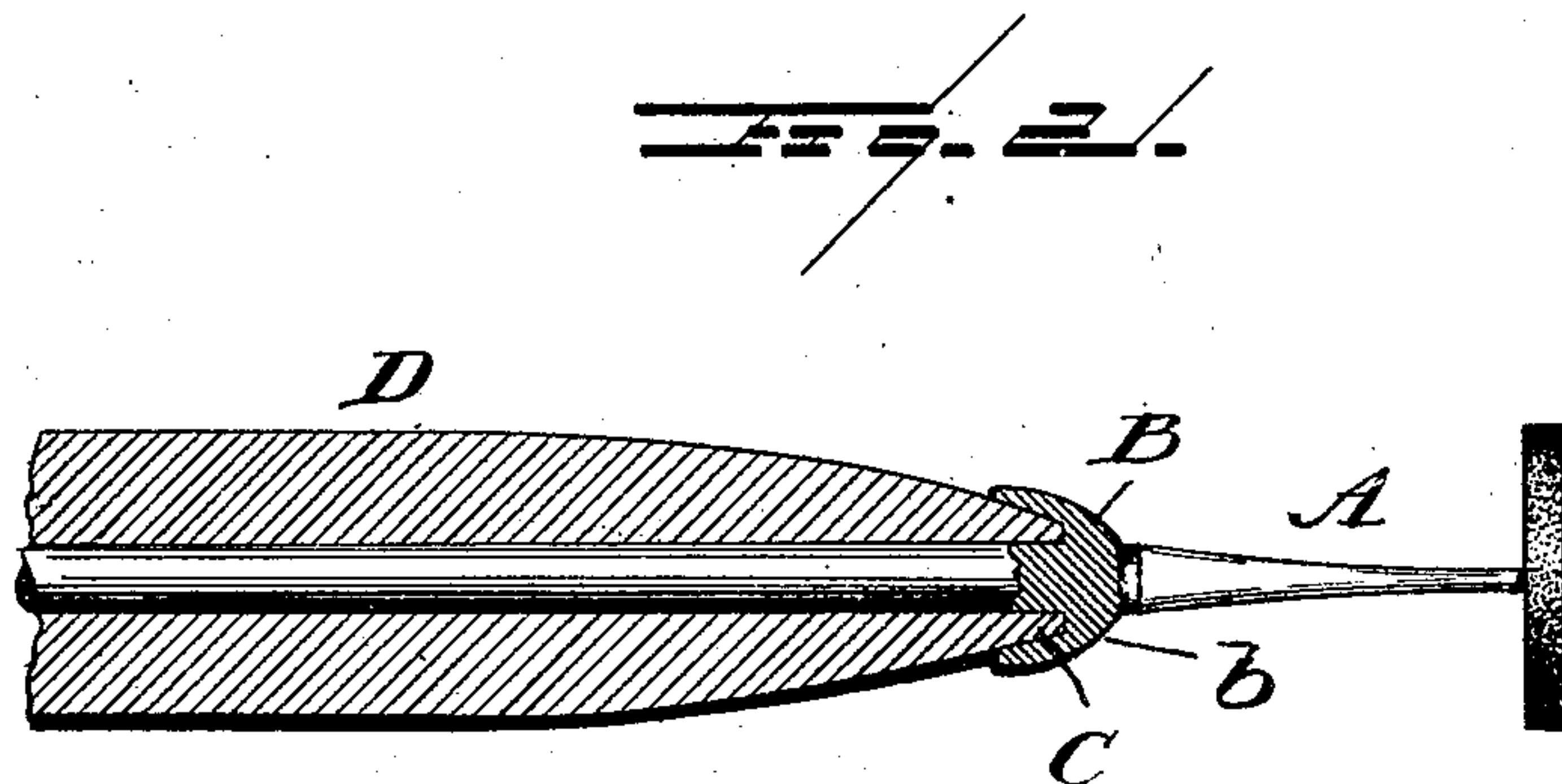
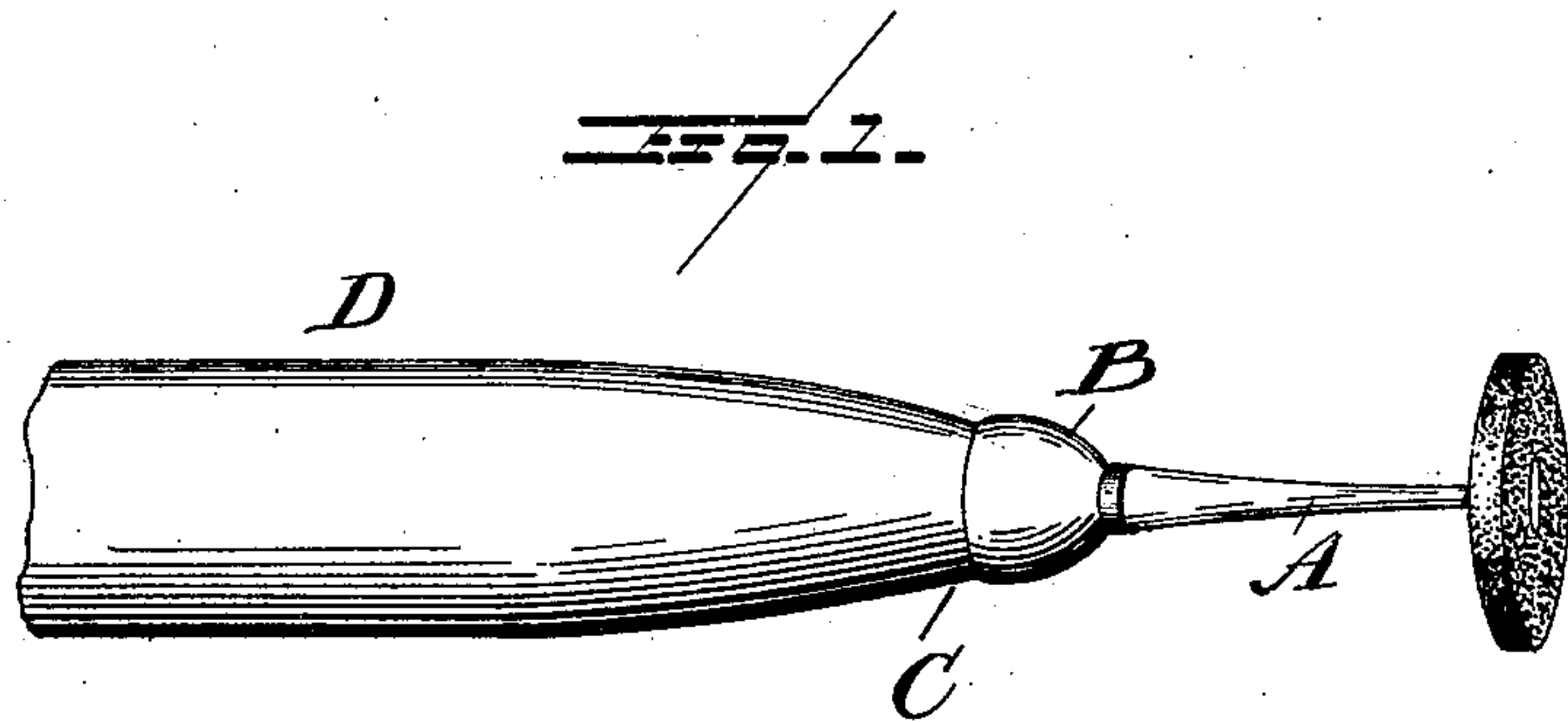
No. 689,596.

Patented Dec. 24, 1901.

S. W. PLATT.
DENTAL TOOL.

(Application filed Apr. 26, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

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DENTAL TOOL.

SPECIFICATION forming part of Letters Patent No. 689,596, dated December 24, 1901.

Application filed April 26, 1900. Serial No. 14,492. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. PLATT, a citizen of the United States, residing at Park City, in the county of Summit and State of Utah, have invented certain new and useful Improvements in Dental Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in dental tools of that class which are designed for use in connection with dental engines, more especially to drills and the like, to which rotary motion is given. These tools are used with lateral pressure, and it is most important that they be kept true and prevented from wobbling. The primary object of my invention is to provide a dental tool with means which will subserve this useful purpose and at the same time act as a hood or shield to prevent water, dust, &c., from finding its way to the bearings.

I am aware that it has been proposed to provide a cup-shaped rubber disk or shield having an opening for the passage of the shank of the tool and adapted to be slipped upon the end or nose of the handpiece; but this, while serving to exclude dust, water, &c., from the stock, performs no function in keeping the tool true as it is rotated and yields to lateral pressure. I accomplish the desired end by providing the point or tool with a hood either integral therewith or rigidly affixed thereto and adapted to closely hug or fit over the cone-shaped nose of the stock. The hood gives stability to the tool in rotation, and there is no room for the passage of water or dust, &c., (along the shank of the tool and between the same and the rubber cup, as in the construction above mentioned,) as the hood and shank are solid, and any water or dust that perchance falls upon the shank will be forced to flow or roll over the inclined surface of the hood to the floor or to the stock; but it cannot enter the latter or get to the bearings.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the

accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a dental tool constructed in accordance with my invention. Fig. 2 is a substantially central longitudinal section through the same. Fig. 3 is a view showing the bit partly inserted in the stock.

Like letters of reference indicate like parts throughout the several views.

Referring to the details of the drawings by letter, A designates the shank of a dental bit or other tool, such as is designed for use in connection with any of the well-known dental engines.

As I claim no novelty in the tool other than in the particular above outlined and as now to be described and as it is proposed to hood every dental engine tool or point, a description of this tool or the dental engine with which it is to be used is not necessary. It being then understood that the outer end may carry a bit, polisher, sandpaper disk, or other implement and that the other end may be constructed or equipped in any suitable manner to adapt it for use with and on the universal handpieces now known and in use, the gist of the invention resides in the provision of a deflected hood or shield B at a suitable point intermediate the ends of the tool, and this hood is by preference formed integral with the shank of the tool, although in some instances it is proposed to make the hoods separate and firmly attach them to shanks. This will permit of the attachment of my hood to tools already manufactured. In either case, however, this hood forms a permanent part of the tool as rigid as if it were of the same piece, and, as shown, the said hood is made conical or with rounded or inclined outer wall or surface, as seen at *b*, and interiorly it is of cone shape, as seen in Fig. 2, to fit closely upon the cone-shaped nose C of the stock D.

The tool is applied to the stock or handpiece in the usual way and, as usual, rotates therein. The hood receives the end of the stock, and the water or dust cannot enter the bearings, for the rounded or inclined surface of the hood will serve to shed the same, and as there is no possible chance for the same to en-

ter along the shank the bearings are kept from being clogged with any foreign or injurious matter; but the most important function performed by the hood is in keeping the tool
5 always true, and all wear is taken up at the nose end of the stock when the tool is in the stock. Tools of this character being always subject to more or less lateral pressure are never true at the point where I furnish a
10 bearing therefor. It is evident that the hood may be made of any required size and that it interferes in no wise with the application or use of the tool.

What is claimed as new is—

15 1. A dental tool having its shank provided with a hood rigid therewith and having its inner face smooth and unthreaded to closely fit the nose-shaped end of a stock to serve the double function of a shield to exclude foreign
20 matter from the interior of the stock and to steady the tool and keep it true, said shank

being rotatably mounted in said stock, as set forth.

2. As an improved article of manufacture a dental tool comprising a shank with one
25 end adapted to receive and retain a dental appliance and the other end to enter a stock and rotate therein, and a hood rigid with the said shank intermediate its ends and concaved upon the side adjacent the stock to
30 receive the nose end thereof and to snugly fit the same to exclude dust and water from the stock and also to keep the tool steady in its rotative movements notwithstanding lateral pressure thereon, substantially as specified. 35

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

SAMUEL W. PLATT.

Witnesses:

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