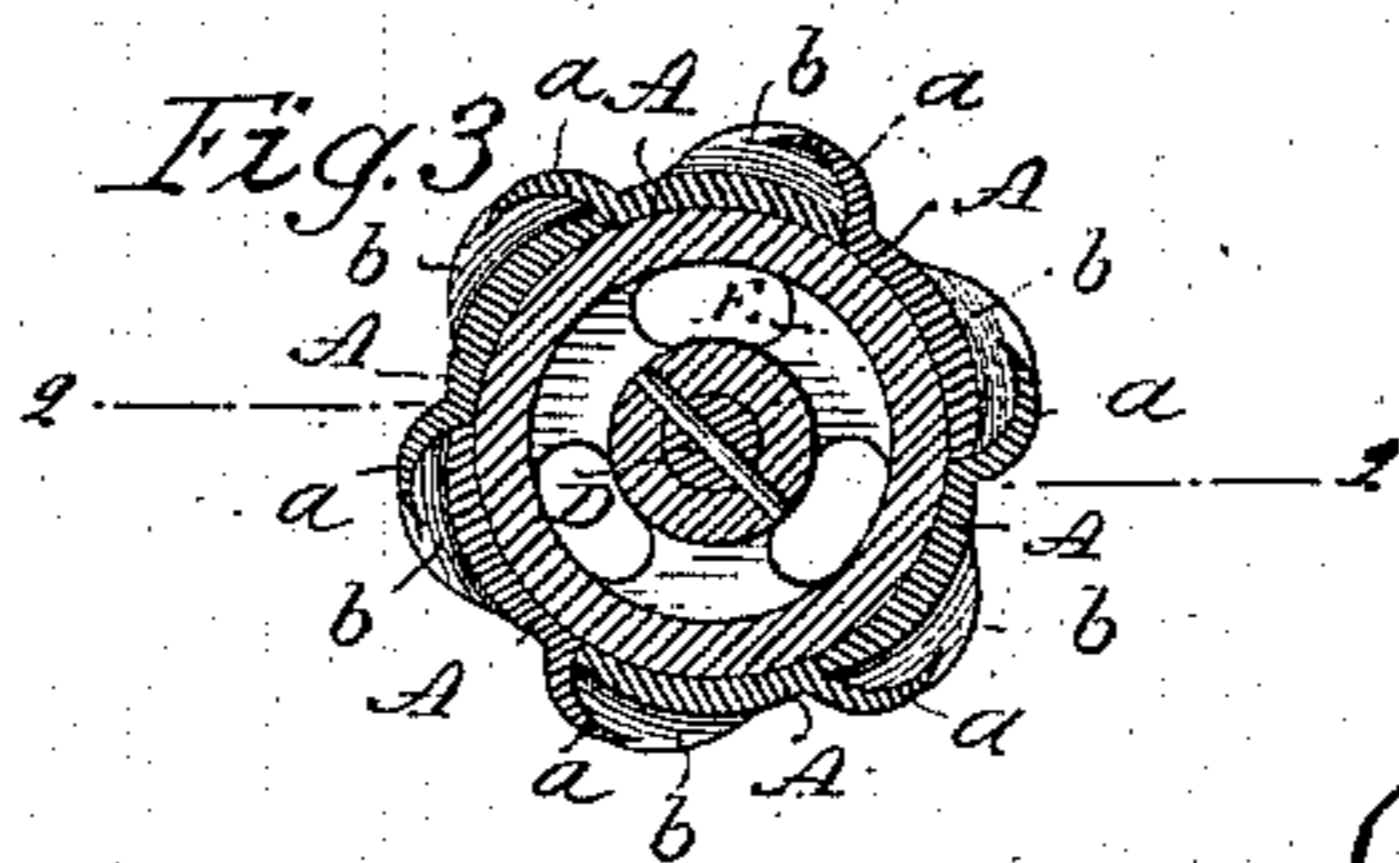
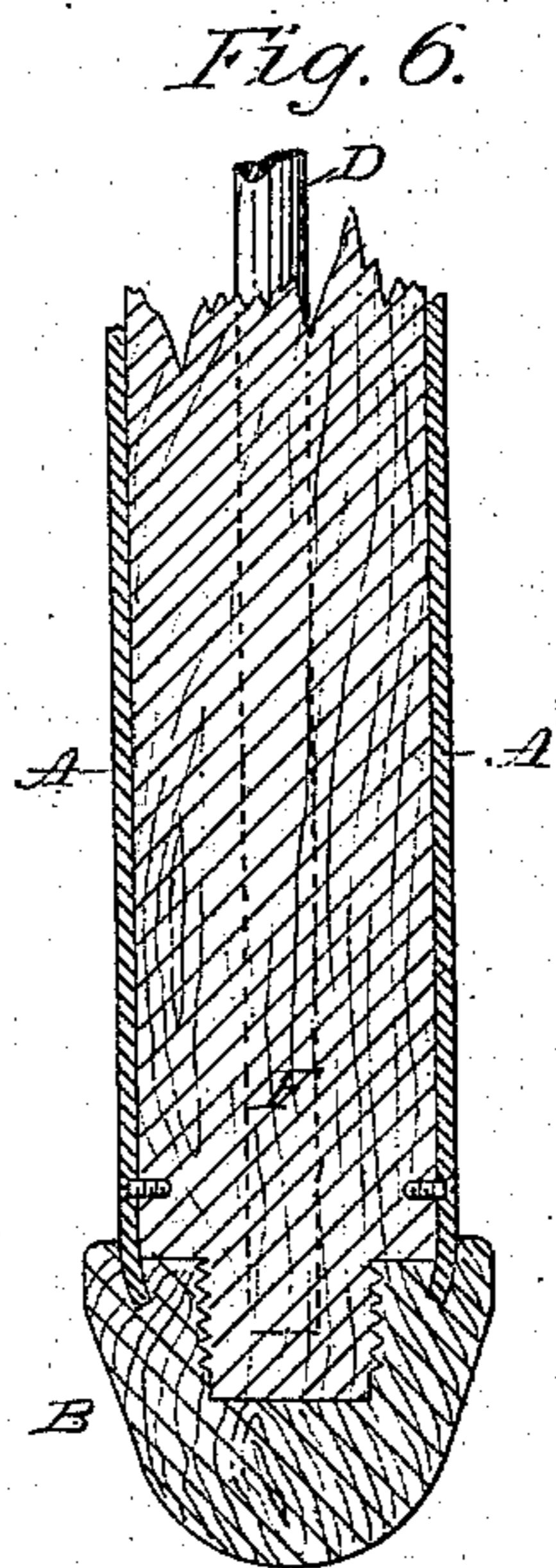
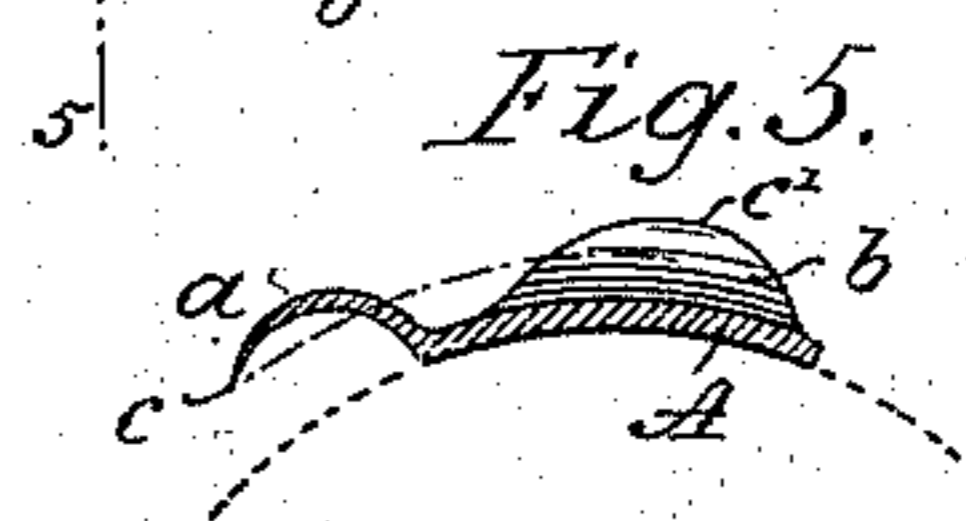
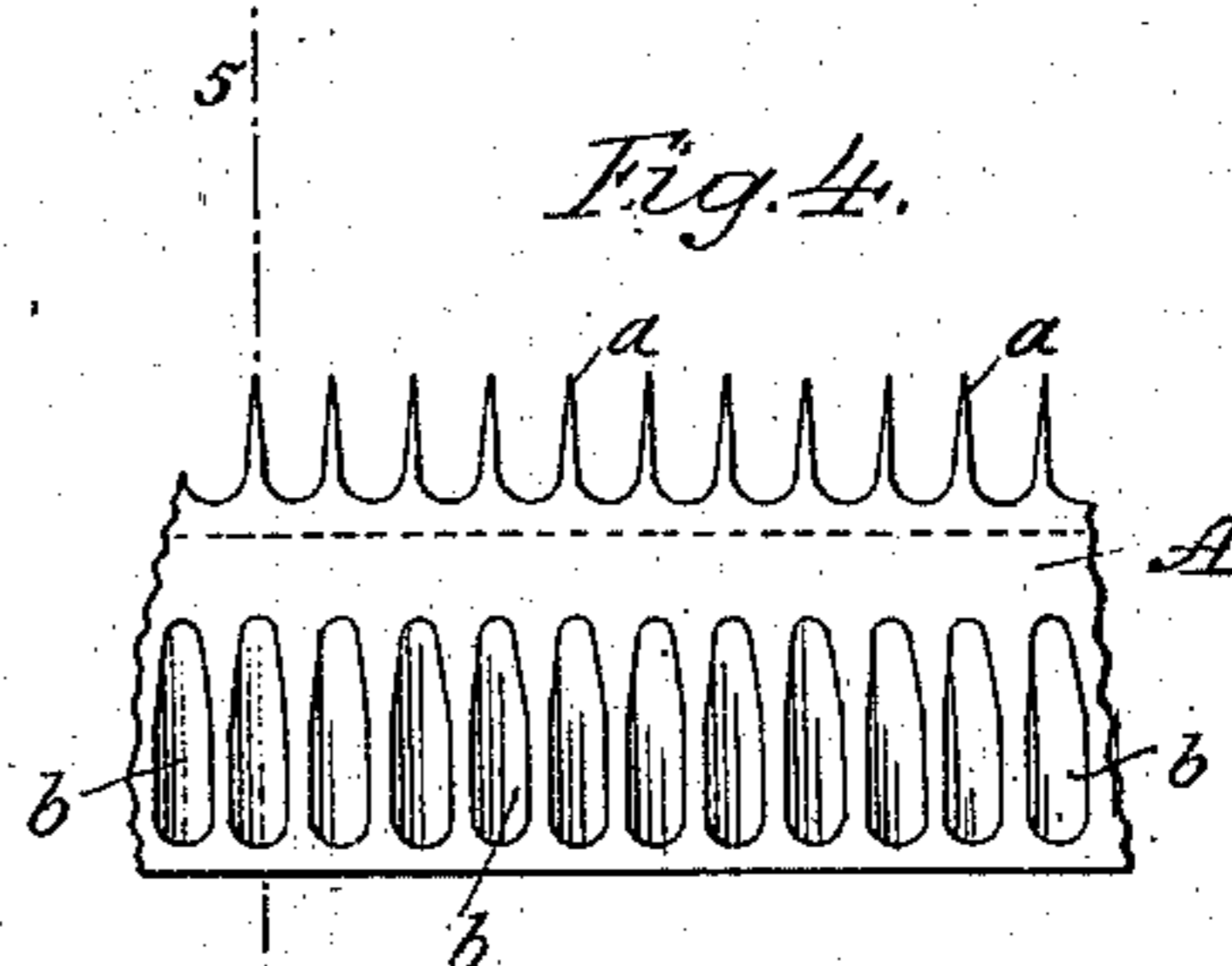
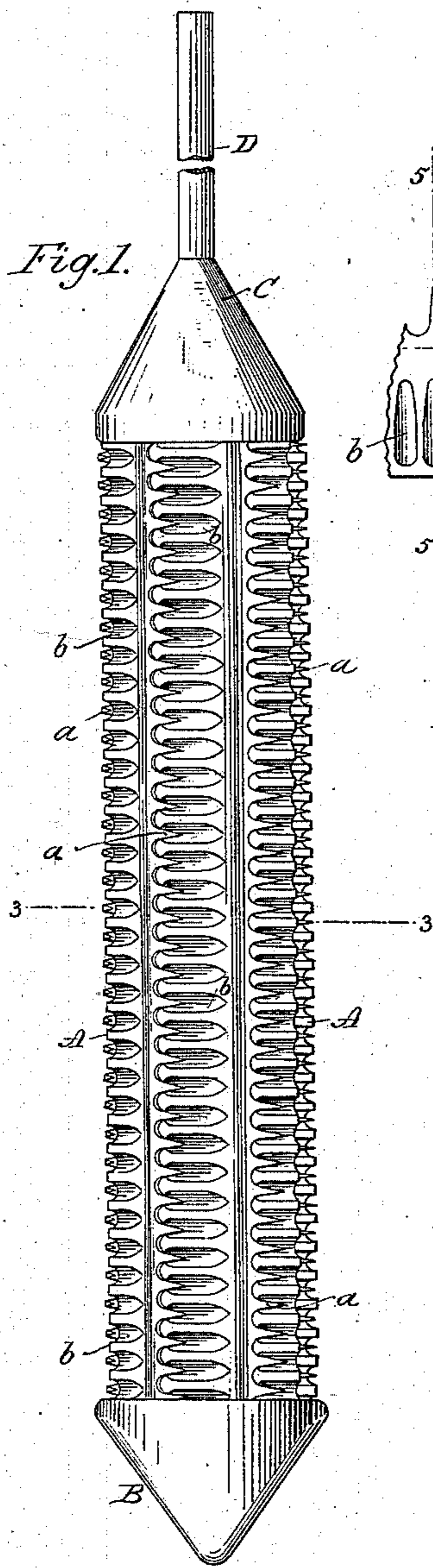
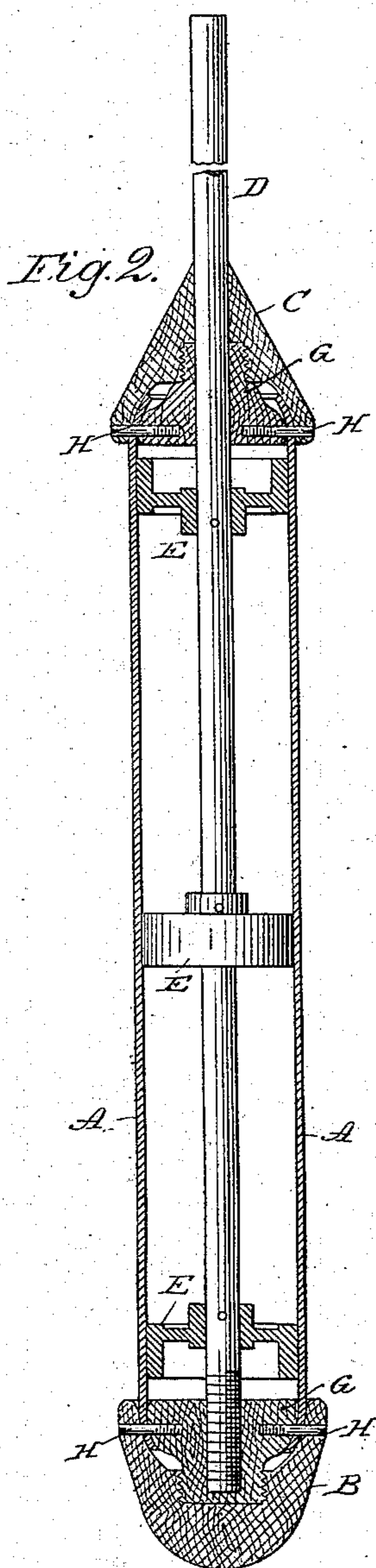


(No Model.)

C. T. MASON, Jr.  
COTTON PICKER STEM.

No. 293,485.

Patented Feb. 12, 1884.



Witnesses:  
Ernest Abshagen,  
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By his Attorneys Rand Benjamin & Co

# UNITED STATES PATENT OFFICE.

CHARLES T. MASON, JR., OF SUMTER, S. C., ASSIGNOR TO THE SOUTHERN COTTON HARVESTING COMPANY, OF SOUTH CAROLINA.

## COTTON-PICKER STEM.

SPECIFICATION forming part of Letters Patent No. 293,485, dated February 12, 1884.

Application filed April 25, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES THOMAS MASON, Jr., of Sumter, Sumter county, South Carolina, have invented a new and useful Improvement in Cotton-Picker Stems, of which the following is a specification.

The invention relates to certain improvements in cotton-picker stems, to adapt the same for more efficiently picking and collecting cotton from the bolls; and it consists more particularly in the construction hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of my improved stem. Fig. 2 is a vertical longitudinal section of same on the line 2 2 of Fig. 3. Fig. 3 is a transverse section on the line 3 3 of Fig. 1. Fig. 4 shows a portion of one of the toothed and recessed plates. Fig. 5 is a transverse section of one of said plates on the line 5 5 of Fig. 4. Fig. 6 is a sectional view of a modification of the device, wherein the toothed and recessed plates are shown attached to a solid core of wood or other suitable material, instead of to the internal disks and end pieces, as represented more particularly in Fig. 2.

Similar letters of reference indicate like parts.

D is the supporting-rod, upon which are rigidly secured the metal flanged disks or rings E E E and end pieces G G.

A A are a series of bent recessed and toothed plates of sheet metal. The inner sides of these plates rest against the flanges of the disks E. Their ends are confined between the end pieces G G and the cap-pieces C and B by screws H, as shown, or other suitable means. The upper end piece, C, is conical in form. The lower end piece, B, is partly conical, but has two flat sides, so as to be substantially wedge-shaped. Its extremity is rounded, and not pointed, for reasons hereinafter explained.

I do not limit myself to a cotton-picker stem intended to be suspended at its upper end by the rod D, inasmuch as in some arrangements of these stems in cotton-picking machines I find it advantageous to give the stem a bearing at its lower end. In such case the cap B is not made of wedge shape, but conical in form, like the cap-piece C, and the rod D is

extended downward through said piece to enter any suitable bearing or support.

The plates A are made of sheet metal, and may be conveniently struck up and cut out in dies. Each plate consists of a long strip, on one side of which are formed teeth *a*. Near the opposite side, and in the body of the plate, are formed indentations or recesses *b*. The teeth *a* are bent over and the plate is curved transversely, so as to adapt it to the periphery of the rings E, as shown in Fig. 5. The plates A are arranged upon the rings E so that the teeth *a* of one plate shall lie in the recess *b* of the plate next adjacent, as shown in Fig. 3. It is essential that the point *c* of each tooth *a* shall be so far bent over as not to protrude beyond the partitions *c'*, Fig. 5, which separate the indentations or recesses *b*.

I have found by experiment that when a suspended cotton-picker stem is provided with a conical lower end piece the point of the cone is apt to enter a crotch of the branches of the cotton-plant, or into a dense growth of branches and leaves, and in rotating make a hole for itself. This is especially the case where the stems, in addition to their rotary movement, have an up-and-down motion. The result is that the lower end of the stem becomes engaged in or with the plant, so that when the machine moves on along the row the stem does not free itself, so that the supporting-rod is thus liable to become bent or broken. I avoid this difficulty by making the ends B of wedge shape, so as to have a blunt curved instead of a pointed end.

In Fig. 6 I exhibit a wooden core, F, to which the plates A are directly attached, the ends of said plates being held in cap-pieces at both ends, in the manner shown. The rod D is shown in dotted line. I prefer in practice the arrangement shown in Figs. 1 to 5, on account of the increased lightness of the stem, and because the parts thereof can mostly be made of metal, and thus be stronger.

The particular construction embodying the core F, as above described, and as shown in Fig. 6, I do not herein claim, but intend to make this construction the subject of a claim in another application to be hereafter filed by me.

In another application for Letters Patent now pending I have described a cotton-picker stem having teeth the points of which do not protrude beyond the guards separating said teeth. The present device is made on the same principle.

I claim as my invention—

1. In a cotton-picker stem, a series of metal plates, A, provided with teeth *a* and recesses *b*, surrounding and secured to a support or supports attached to a central rod, and so arranged that the teeth *a* of one plate shall lie in the recesses *b* of the next adjacent plate, substantially as described.

2. In a cotton-picker stem, a series of metal plates, A, provided with teeth *a* and upward projections or partitions *c'*, surrounding and secured to a support or supports attached to a central rod, and so arranged that the teeth *a* of one plate shall lie between the partitions *c'* of the next adjacent plate, substantially as described.

3. In a suspended cotton-picker stem, an end piece or cap for the lower end thereof, substantially of wedge form, and having a blunt or rounded lower edge or extremity, substantially as described.

4. In a cotton-picker stem the combination of the rod D, cap-pieces C and B, end pieces G, flanged supporting-disks E, and plates A, substantially as described.

5. A cotton-picker stem having on its periphery a series of recesses or indentations, the said recesses being arranged side by side and longitudinally or parallel to the axis of the stem, and teeth arranged in said recesses, the engaging ends of said teeth being on a level with or slightly below the outer surface of the partitions between the said recesses, substantially as described.

CHARLES T. MASON, JR.

Witnesses:

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