

(No Model.)

F. J. KALDENBERG  
DRAFT APPLIANCE FOR TOBACCO PIPES.

No. 578,881.

Patented Mar. 16, 1897.

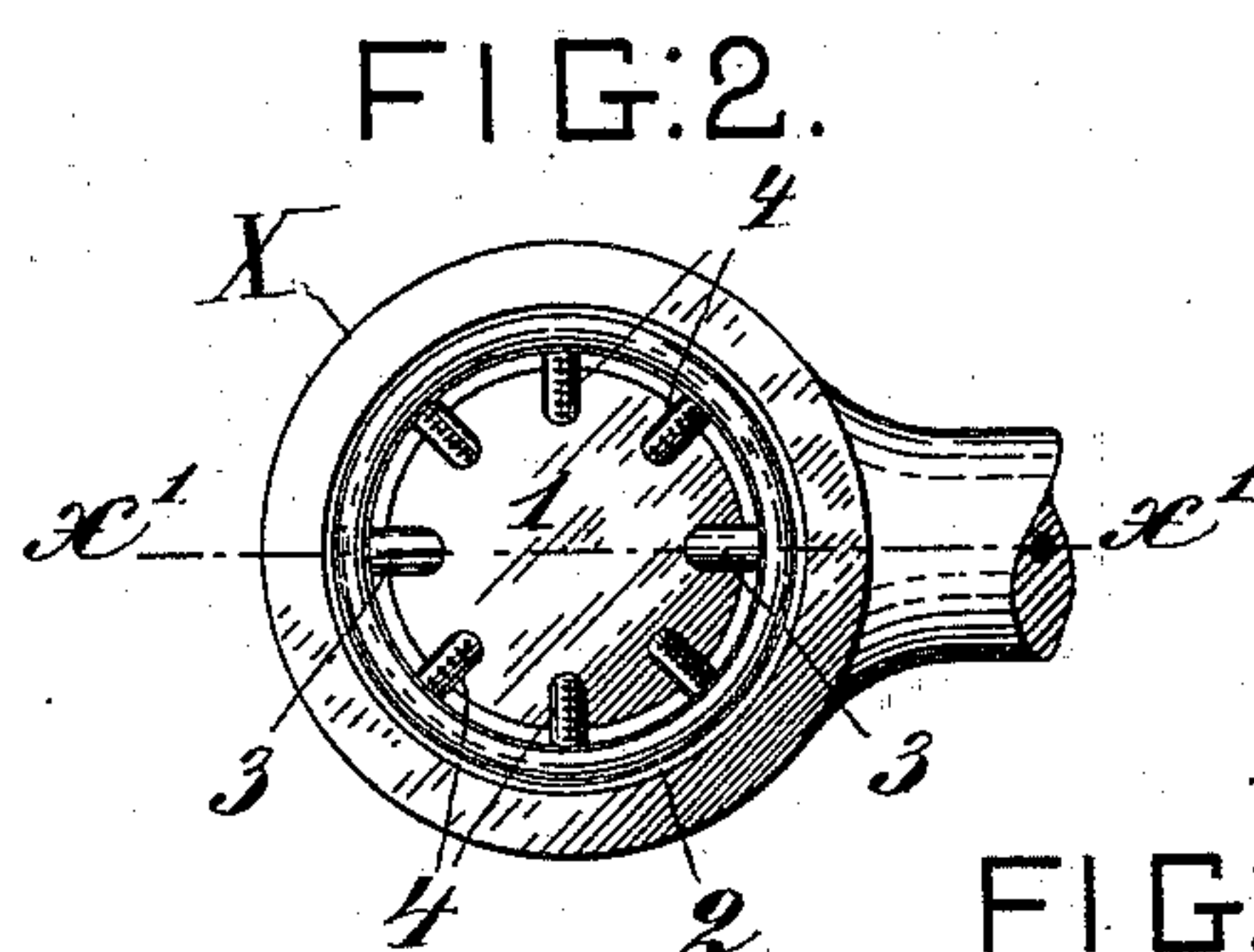
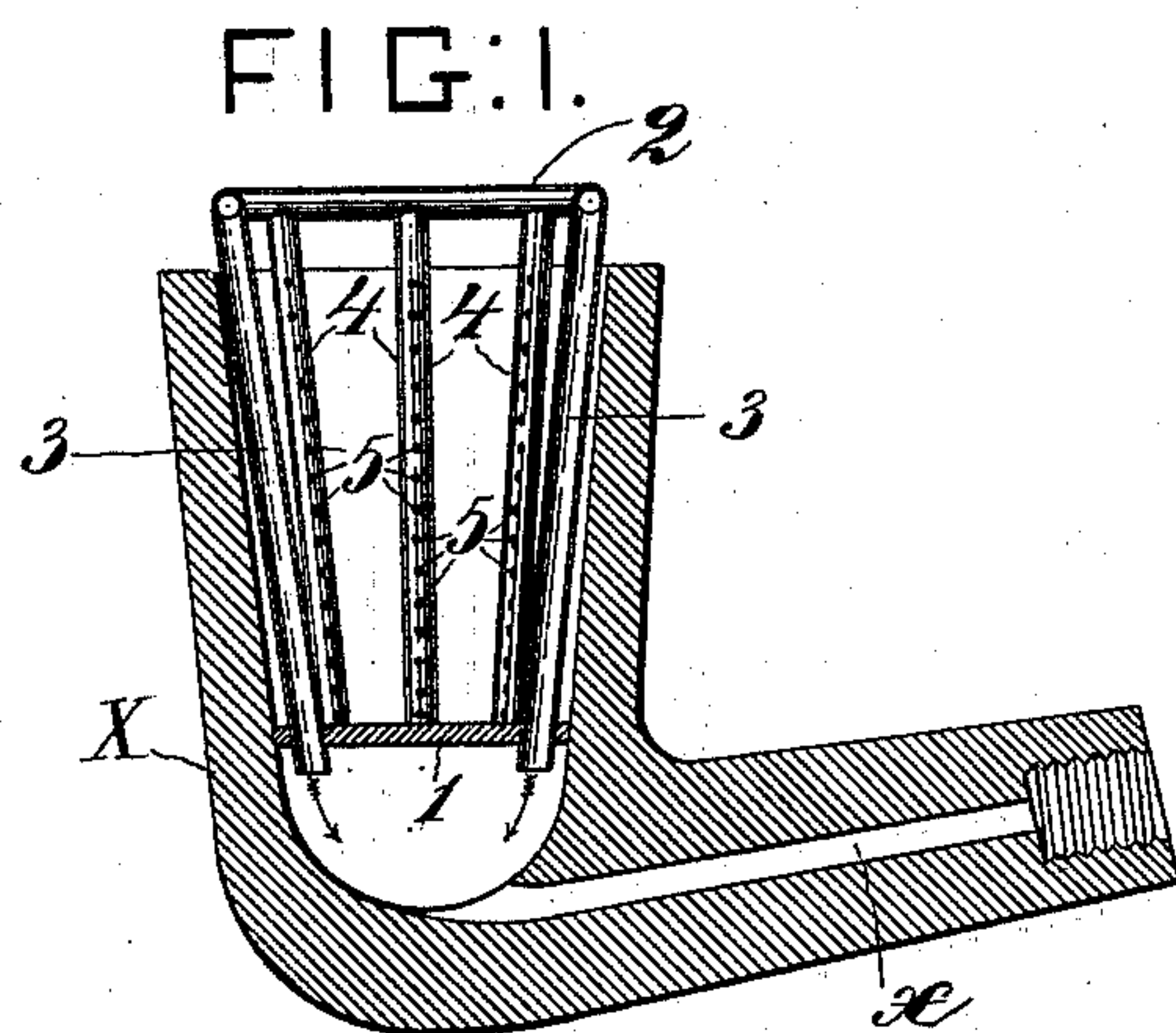


FIG:3.

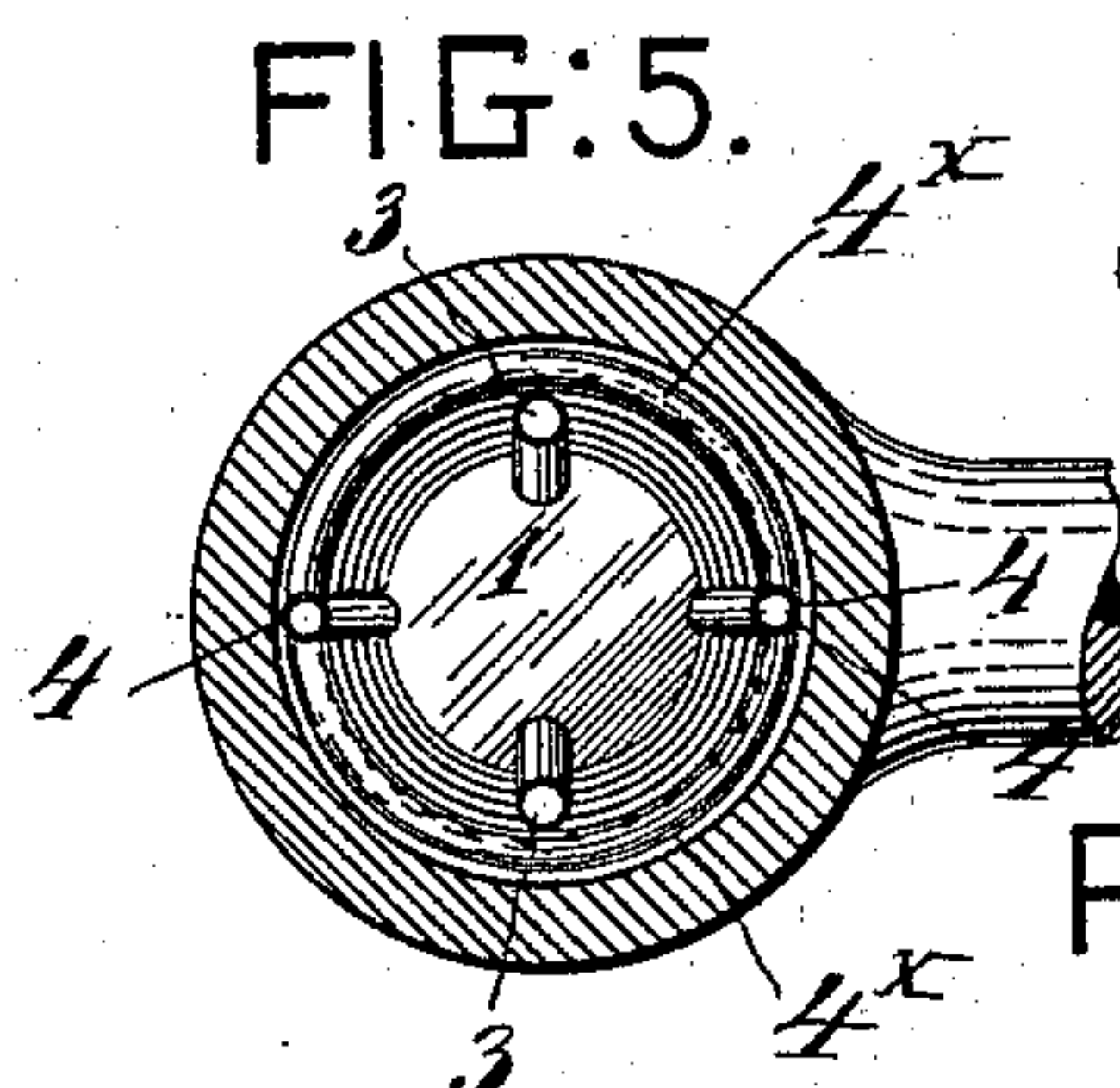
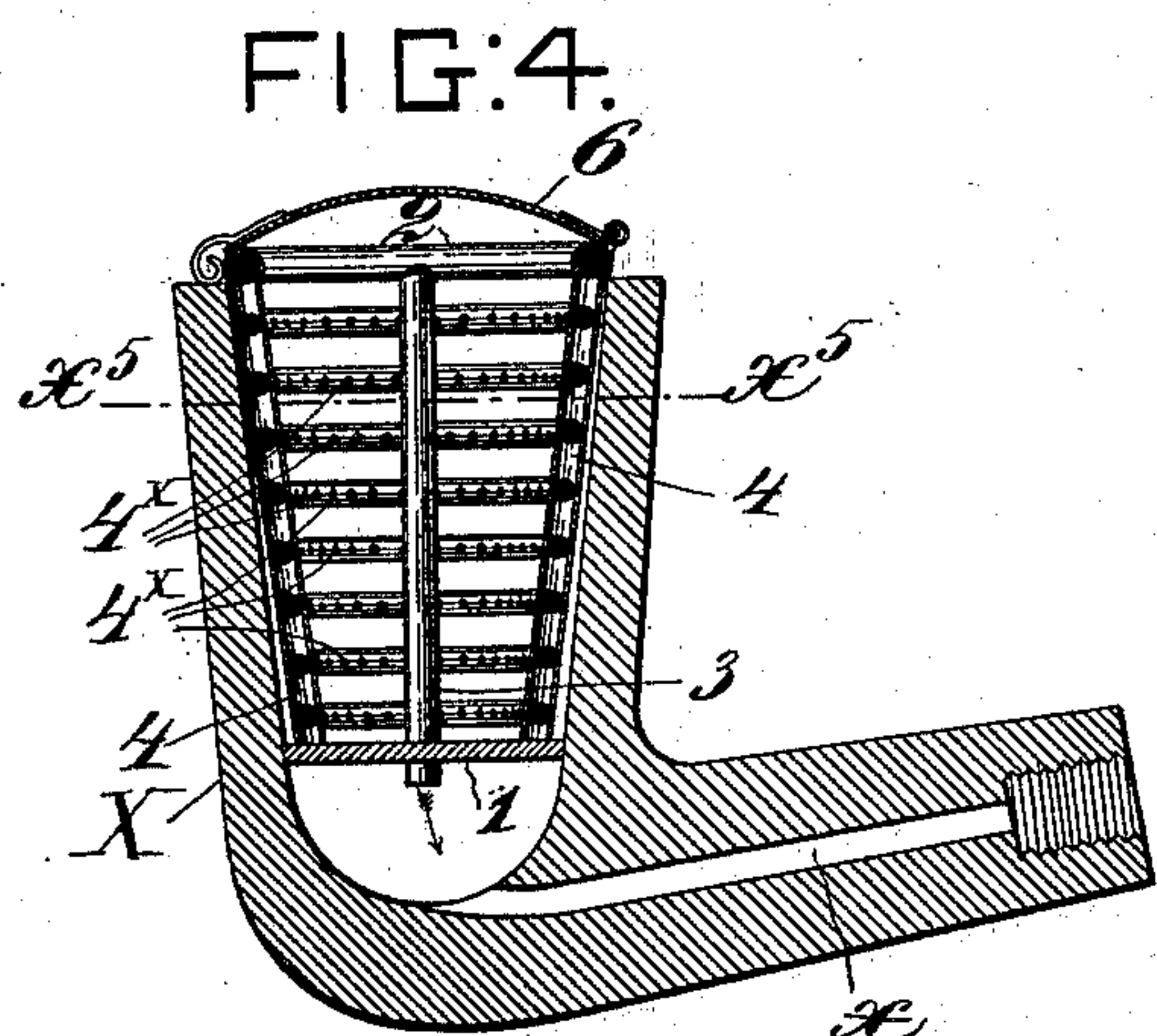
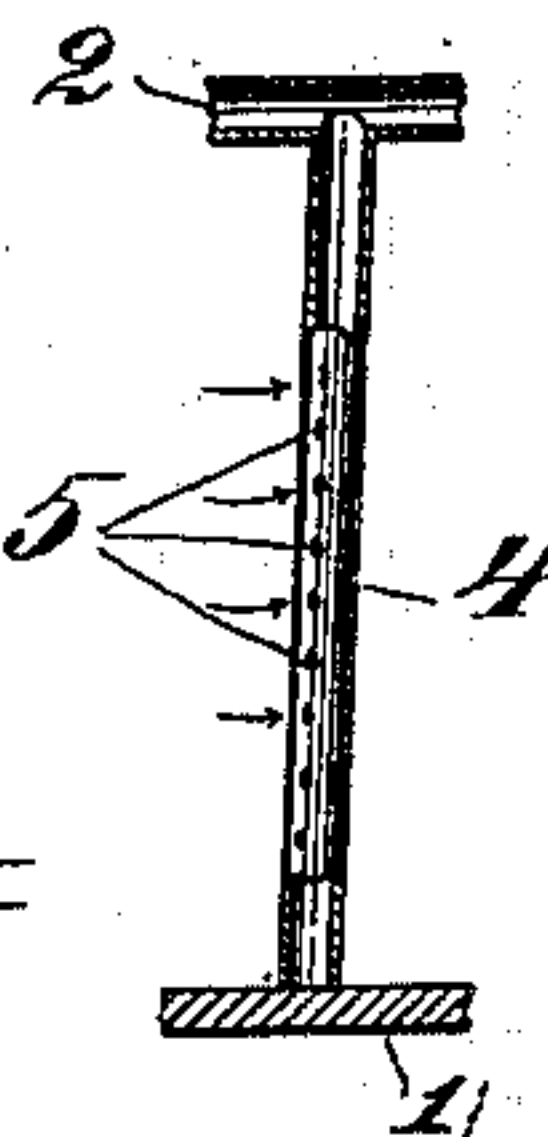


FIG:8.

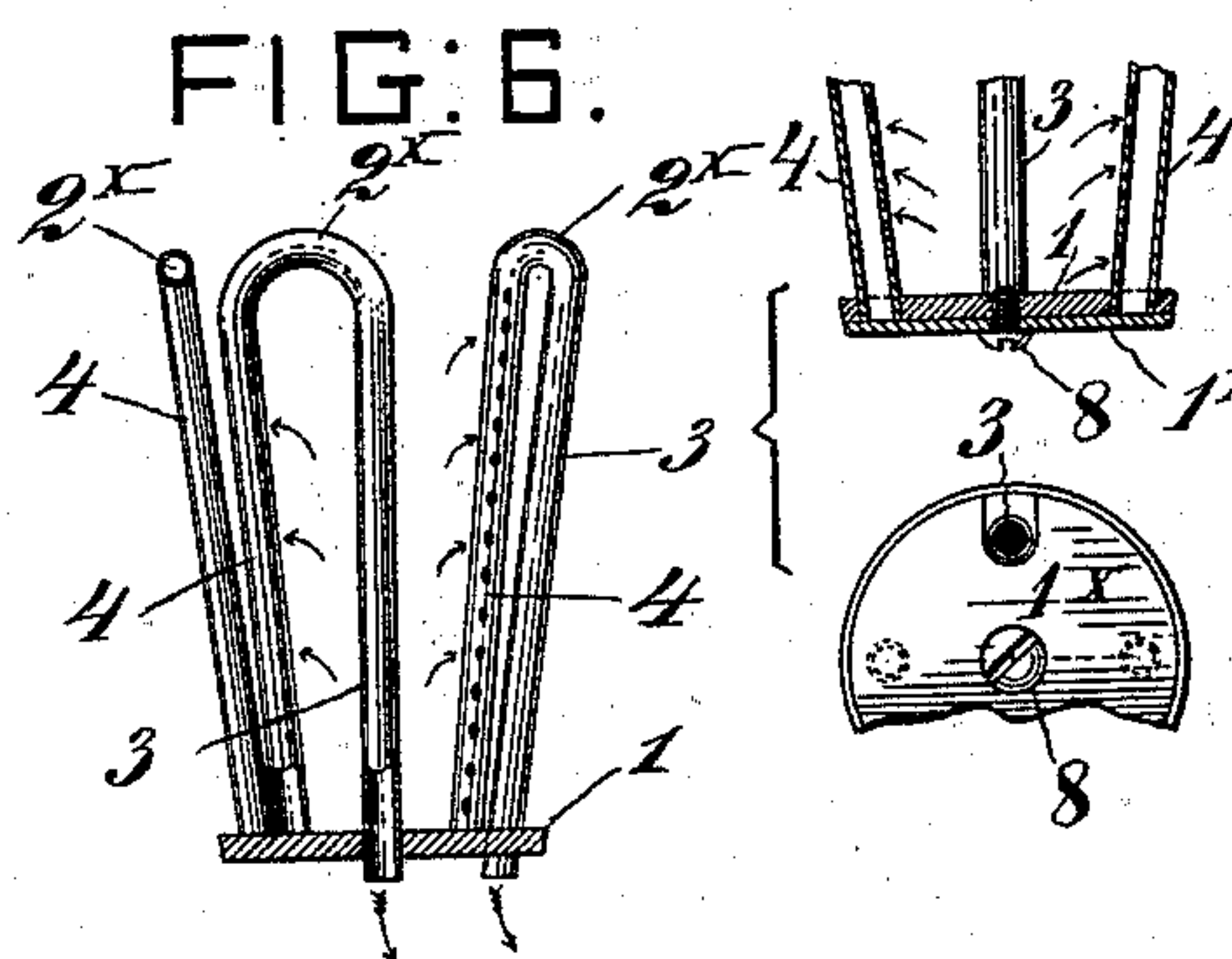
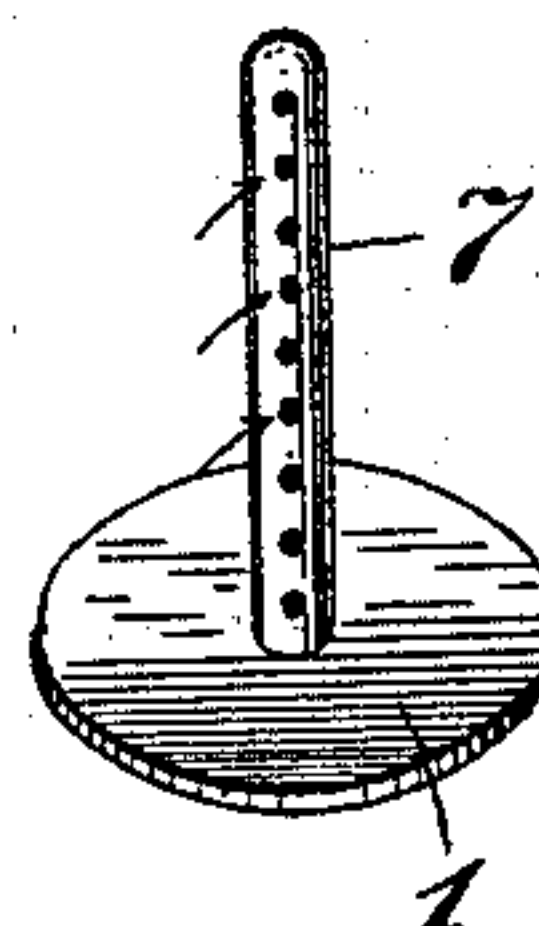
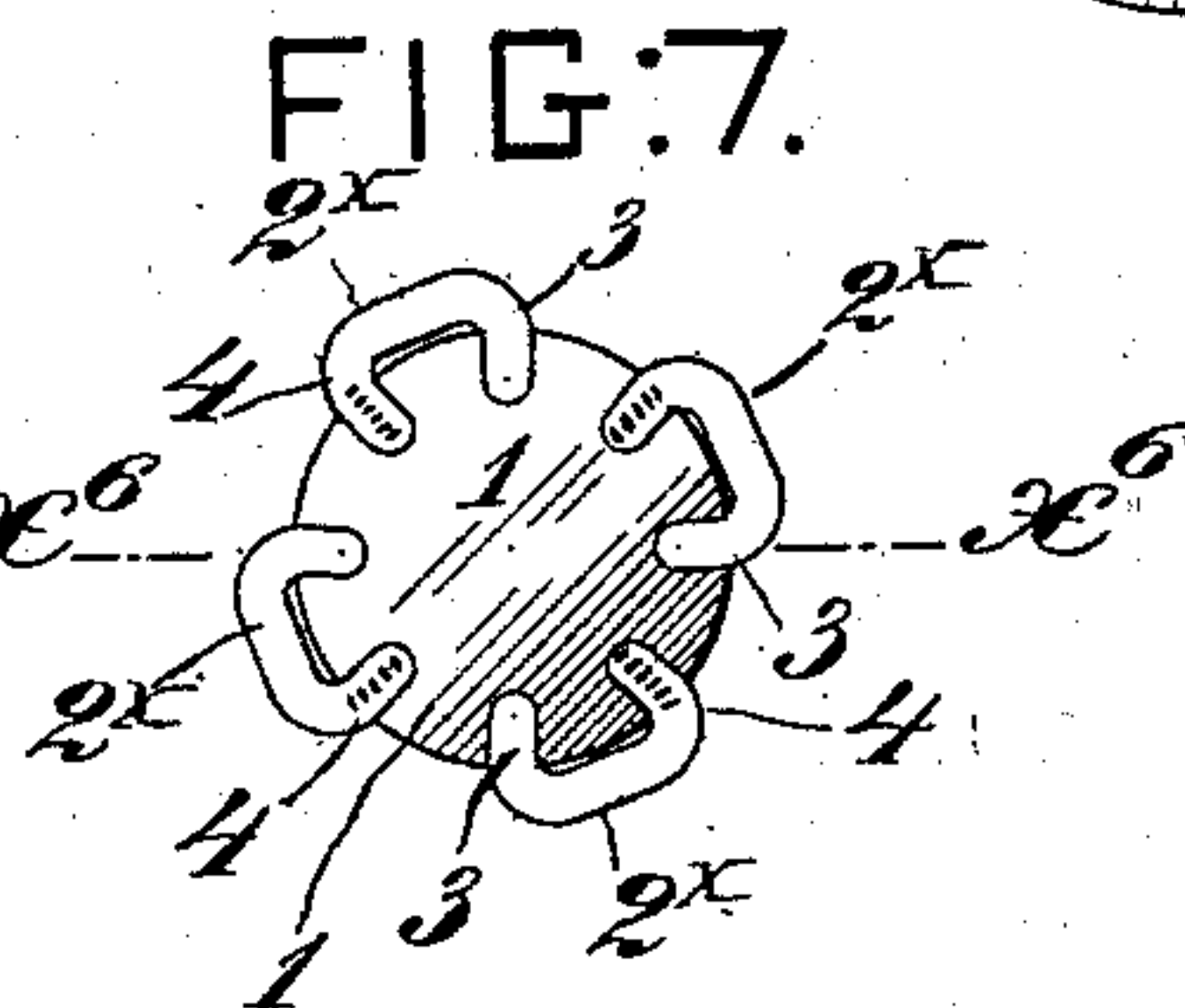
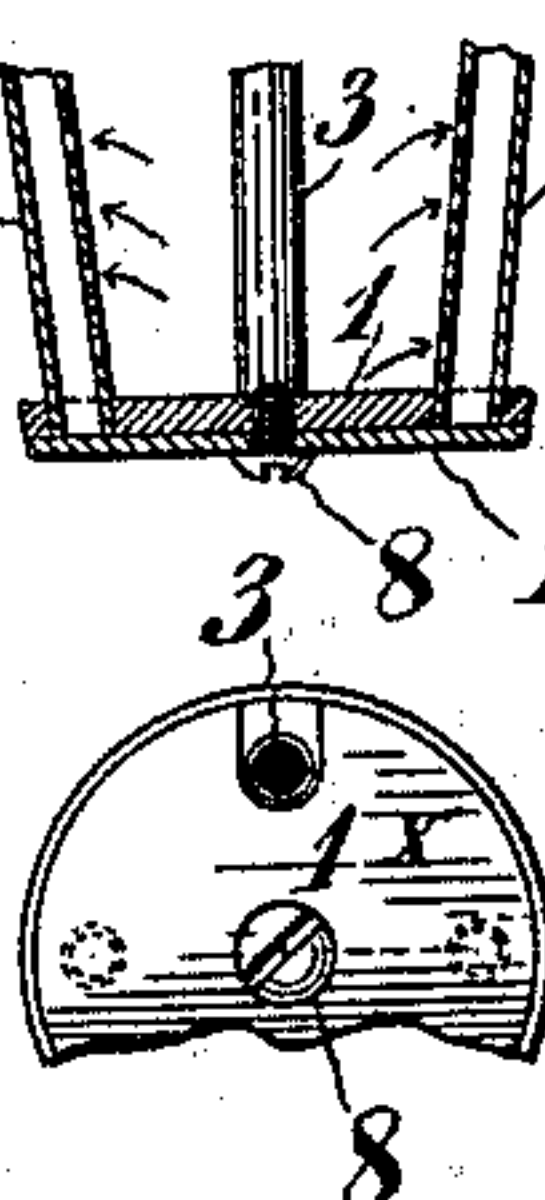


FIG:9.



WITNESSES:

*J. H. Wimmer*  
*Peter A. Cross*

INVENTOR:

*Frederick J. Kaldenberg*

By *Henry Cornett*  
Attorney.



# UNITED STATES PATENT OFFICE.

FREDERICK J. KALDENBERG, OF TARRYTOWN, NEW YORK, ASSIGNOR TO  
M. S. KALDENBERG, OF SAME PLACE.

## DRAFT APPLIANCE FOR TOBACCO-PIPES.

SPECIFICATION forming part of Letters Patent No. 578,881, dated March 16, 1897.

Application filed June 25, 1896. Serial No. 596,885. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK J. KALDENBERG, a citizen of the United States, residing at Tarrytown, Westchester county, New York, have invented certain new and useful Improvements in Draft Appliances for Tobacco-Pipes, of which the following is a specification.

My invention relates to devices connected with tobacco pipes and holders; and the object is to provide a device or appliance for taking up and conveying the smoke to the mouth of the smoker without permitting or causing it to first pass through the mass of tobacco in the bowl or holder.

It is well known that in the ordinary method of smoking tobacco the body or mass of the tobacco is between the ignited layer thereof and the mouth of the smoker, and that all of the smoke, products of combustion, &c., which reaches the smoker's mouth must first pass through the mass of tobacco, thus fouling it and injuring its quality and to some extent distilling it through the influence on it of the heated gases.

In carrying out my invention I provide a means whereby the smoke is taken directly from the burning layer of tobacco through a tubular passage directly to the mouth. The smoke is also mixed to some extent with air, and means are provided for always taking the smoke from the burning layer as the consumption of the tobacco goes on.

The accompanying drawings illustrate several embodiments of the invention, all of which operate on the same principle.

Figure 1 is a section of a pipe-bowl and of my draft device or appliance therein, the plane of the section being indicated by line  $x'$  in Fig. 2. Fig. 2 is a plan view of the pipe and appliance seen in Fig. 1. Fig. 3 is a fragmentary detached sectional view of a part of the appliance. Figs. 4 and 5 are views similar to Figs. 1 and 2, illustrating another embodiment of the invention. Fig. 5 is a horizontal section on line  $x^5$  in Fig. 4. Figs. 6 and 7 illustrate another embodiment of the invention, the former showing the draft appliance detached and in section on line  $x^6$  in Fig. 7 and the latter showing it in plan. Fig.

8 is a view illustrating a very simple form of the invention; and Fig. 9 illustrates in detail a means for closing the lower ends of the perforated draft-tubes, whereby they may be readily opened for cleaning.

Referring primarily to Figs. 1, 2, and 3, X represents a tobacco-pipe of any kind, in the bowl of which is set or fitted my improved draft appliance. This latter will be made of some material not liable to injury by heat, as metal, and preferably of silver or other heavily-plated metal, and it is in the form of a basket or cage adapted to be set in the pipe-bowl. It comprises a bottom plate or disk 1, an outer tubular ring 2, and one or more tubes 3, (preferably four,) open at their outer ends to the hollow in the ring 2 and at their inner or lower ends secured to the plate 1 and open to the draft or smoke passage  $x$  in the stem of the pipe. Other tubes 4, one or more, extend from the plate or disk 1 up to the ring 2, said tubes 4 being closed at their lower ends and open at their upper or outer ends to the hollow in the ring 2. The tubes 4 have in them apertures or perforations 5 at intervals in their length.

When the draft appliance described is placed in the pipe or tobacco-holder, the latter filled with tobacco, the tobacco ignited, and suction applied in the usual manner to the stem of the pipe, the smoke from the ignited tobacco will enter the tubes 4, through the upper tier of perforations 5 therein, adjacent to the plane of ignition of the tobacco, flow up to the ring 2, and thence down the tube or tubes 3 to the smoke-passage  $x$  of the pipe. As the tobacco burns down the smoke will enter the tubes 4 at lower and lower perforations therein. Some air, as well as smoke, will enter the tubes 4 at the perforations, but the smoke and hot products of combustion will not pass down through the mass of tobacco, as it does in the ordinary pipe.

The draft appliance may project a little above the top of the pipe-bowl, as seen in Fig. 1, and it may be provided with a hinged cap or cover 6, as shown in Fig. 4.

In lieu of perforating the tubes 4 themselves these tubes may be connected by perforated horizontally-arranged tubes  $4^x$ . (Seen



in Figs. 4 and 5.) These upright tubes 4 and horizontal tubes 4<sup>x</sup> of Fig. 4 perform the same functions as the perforated tubes 4 of Fig. 1.

In lieu of employing a separate ring-tube 2 for connecting the non-perforated draft-tube 3 with the perforated tube 4 the two tubes may be integral, as seen in Figs. 6 and 7, and connected by an imperforate arch or bend 2<sup>x</sup>. This is the simpler of the several  
10 embodiments shown.

In Fig. 6 the plate 1 is represented in section, and the ends of the nearer tubes 3 and 4 are represented as broken away at their lower ends.

15 It is convenient to make the disk 1 a part of the draft appliance, as it serves as a base to support the tubes and enables the appliance to be used in the common wood pipe; but where the pipe has a diaphragm or partition in it, with holes to receive the tube or  
20 tubes 3, the disk 1 may be omitted.

Fig. 8 illustrates a form of the invention which is simpler than the others. In this construction a perforated tube 7, closed at its  
25 top and open at its lower end, is fixed at its lower end in the plate 1 and is of course embedded in the tobacco when the pipe-bowl is filled. The smoke from the ignited layer of the tobacco enters the perforations in the  
30 tube and flows down to the smoke-passage in the stem. This draft appliance serves to prevent the smoke from passing down through and in contact with the unburned tobacco, which is the primary object, but when the  
35 tobacco is burned low the smoke flows too directly into the passage  $\alpha$  to yield the best results.

It is desirable to provide a convenient means of opening the lower ends of the tubes 4 in  
40 order to get at their interior for cleaning them. Such a means is illustrated in Fig. 9, which shows a fragmentary sectional view and a fragmentary under side view of the appliance of the form seen in Fig. 1. In this construction the perforated tubes 4 open through the  
45 plate 1 and are covered, normally, by a thin plate 1<sup>x</sup>, secured to the plate 1 by a screw 8, so that it may be removed at any time. The draft appliance may be washed out by means  
50 of alcohol, in which it may be soaked.

As to the operation of my device it may be said that the ashes remaining above the ignited tobacco serve to close or partly close the perforations in the tubes, so that very  
55 little air will enter thereat.

Having thus described my invention, I claim—

1. A draft appliance for a tobacco-pipe, com-

prising a disk which fits into the tobacco-receiving bowl of the pipe near the bottom of  
60 the same, thus serving as a partition between the stem of the pipe and the tobacco in the bowl, and a slender tube fixed in said disk and extending upward into the tobacco-space  
65 in the pipe-bowl, said tube having in it a series of perforations at different levels to receive the smoke from the burning tobacco, said perforated tube being closed at one end and open at the other end to the draft-passage through the stem of the pipe.  
70

2. A draft appliance for a tobacco-pipe, comprising a disk adapted to fit into the tobacco-receiving bowl of the pipe near its bottom and form a partition between the tobacco above  
75 and the smoke-passage below leading to the mouth, a slender, perforated, smoke-receiving tube fixed in said disk at its closed lower end and extending upward into the tobacco-space in the bowl, and a slender, imperforate  
80 draft-tube in the tobacco-space of the bowl, the upper end of said draft-tube communicating with the upper end of the smoke-receiving, perforated tube, and its open, lower end extending down through said partition-disk.

3. A draft appliance for a tobacco-pipe, comprising a bottom plate 1, adapted to fit into  
85 the pipe-bowl, one or more upright draft-tubes 3, fixed in and extending down through said plate, upright, perforated smoke-receiving tubes 4, fixed to the said plate at their lower  
90 ends, and a tubular ring 2, connecting the upper or outer ends of the tubes 3 and 4, substantially as and for the purposes set forth.

4. As an improved article of manufacture, a draft appliance for a tobacco-pipe of which  
95 the bowl is open at the top and has an outlet for the smoke at its bottom, said draft appliance comprising a disk 1, adapted to fit into the pipe-bowl as a partition between the tobacco above and the smoke-outlet below, and  
100 an upright tube fixed in said disk and projecting up into the tobacco-space in the bowl, and having in it perforations at different levels to receive the smoke from the burning tobacco, said perforated tube communicating  
105 at one end with the smoke-passage in the pipe when the appliance is placed therein, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing  
110 witnesses.

FREDERICK J. KALDENBERG.

Witnesses:

HENRY CONNETT,  
PETER A. ROSS.