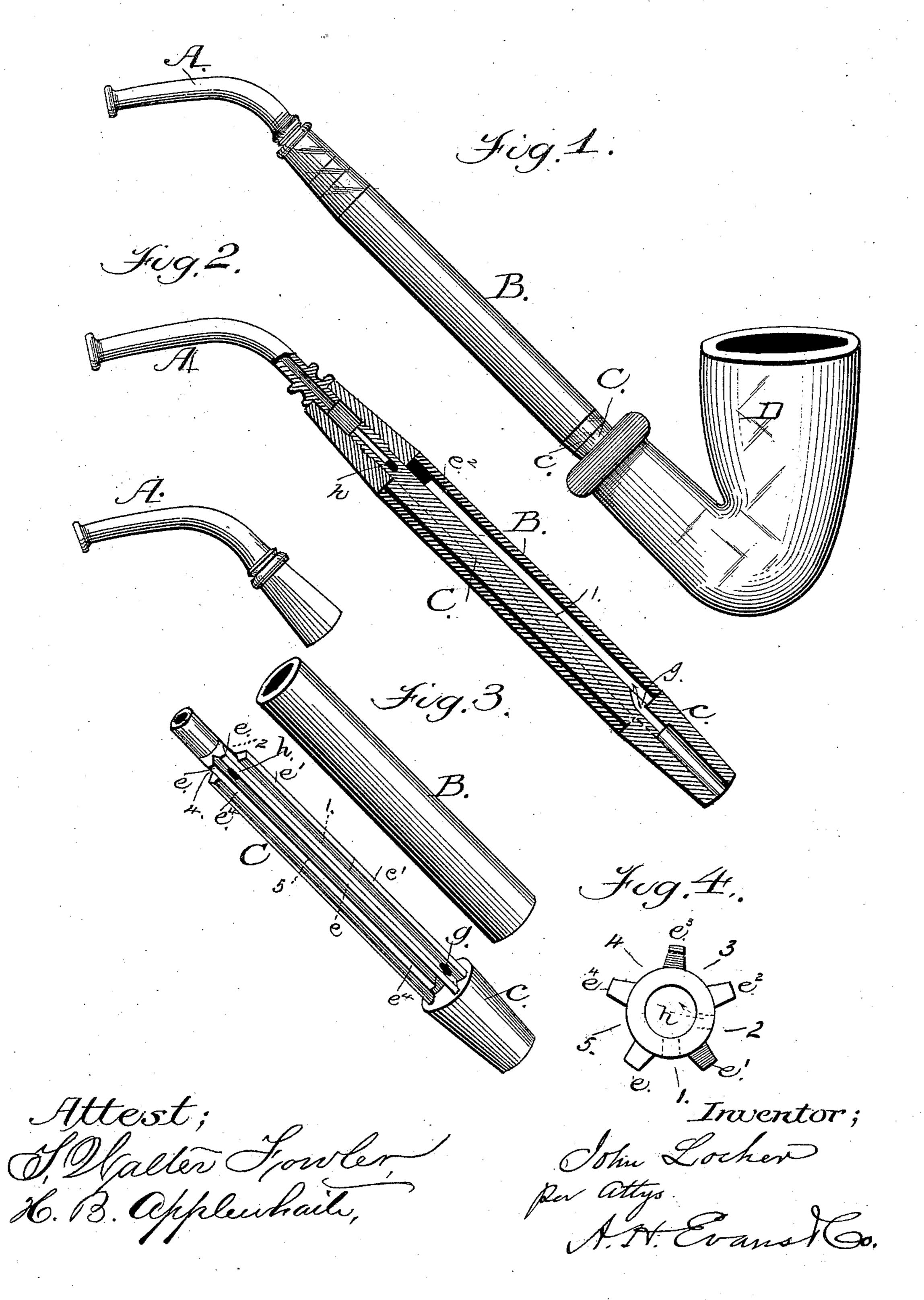
## J. LOCHER.

PIPE STEM.

No. 309,473.

Patented Dec. 16, 1884.



## United States Patent Office.

## JOHN LOCHER, OF CHICAGO, ILLINOIS.

## PIPE-STEM.

SPECIFICATION forming part of Letters Patent No. 309,473, dated December 16, 1884.

Application filed April 2, 1884. (No model.)

To all whom it may concern:

Be it known that I, John Locher, a citizen of the United States, and residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Pipe-Stems, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation of a pipe-stem with my improvements attached. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 represents the parts detached.

Fig. 4 is a detail to be referred to.

15 My invention relates to an improvement in stems for pipes, whereby the smoke, upon entering the stem, is caused to pass up and down channels or passages in such a manner that the smoke is cooled before it enters the mouth of the smoker; and it consists in the novel arrangement and combinations of devices, as will be hereinafter more fully set forth, and pointed out in the claims.

To enable others skilled in the art to make and use my invention, I will now proceed to describe the exact manner in which I have

carried it out.

Heretofore great annoyance has been experienced by those who use the stems attached 30 to smoking-pipes now generally in use by the great heat contained in the smoke, which, after passing from the bowl of the pipe, travels but a short distance and then enters the mouth of the smoker, often producing disa-35 greeable as well as dangerous results. To obviate this difficulty I have constructed a device in such a manner that the smoke is cooled before it reaches the mouth, thereby permitting the owner to obtain and enjoy a delight-40 ful smoke. This I accomplish by means of my improved stem, which is constructed, preferably, in three pieces, A B C. The portion A is formed with the curved mouth-piece composed of amber, celluloid, hard rubber, 45 or any other well-known substance, and is in shape similar to those now in use.

B represents a hollow sleeve, which is made slightly shorter than the core C, over which it closely fits, and this sleeve, in conjunction with the core C, forms passages for the smoke, as will be hereinafter more fully set forth. The core C is constructed so that its enlarged end, c, can be placed within the neck of the

bowl D, and secured to this enlarged end is an extension, which is provided with a series 55 of flanges or ribs,  $e e' e^2 e^3 e^4$ , which form passages 1 2 3 4 5, as shown in Fig. 4. An opening, g, formed in the enlarged end c, enters the passage 1, formed by the ribs e e'. It will be seen from the drawings that the ribs e' and 60  $e^3$  are so constructed that when the parts are put together, as shown in Fig. 2, open spaces are left between the ends of the ribs and the portion A, while the ribs  $e^2$  and  $e^4$  are similarly constructed to form an opening between the 65 enlarged end e' and the ends of the said ribs.

From the foregoing description it is evident that the smoke, on being drawn into the stem through the opening g, passes up the passage 1 through the opening at the top, 70 thence down passage 2 through the space at the bottom of rib  $e^2$ , and thence up passage 3 through the space at top of rib  $e^3$ , thence down passage 4 through the space at bottom of rib  $e^4$ , and thence up passage 5 and through the  $_{75}$ opening h into the mouth-piece, which is secured to the extended portion of C, which is threaded, so that the parts can be removed. for cleaning. Thus the smoke is caused to travel a considerable distance, and is not only 80 cooled, but is also relieved of the greater portion of nicotine, which will adhere to the sides of the ribs and not pass into the mouth, as is now the case.

Having thus fully described my invention, 85 what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, the herein-described stem for pipes, consisting of the mouth-piece A, the hollow sleeve B, and 90 the core C, the latter being provided with radial projections, which extend longitudinally along the core, forming longitudinal connected smoke-passages, and having inlet and outlet openings, substantially as described.

2. The bowl D, removable sleeve B, and mouth-piece A, in combination with the core C, provided with a series of radial projections extending longitudinally along the core, each alternate rib cut away to form a passage for 100 the smoke, and having inlet and outlet openings g and h, as herein set forth.

JOHN LOCHER.

Witnesses:

NICHOLAS LEWIS, P. P. FOGERTY.