(No Model.)

F. J. KALDENBERG.

MOUTH PIECE.

No. 265,613. Patented Oct. 10, 1882.

Fig. 1.

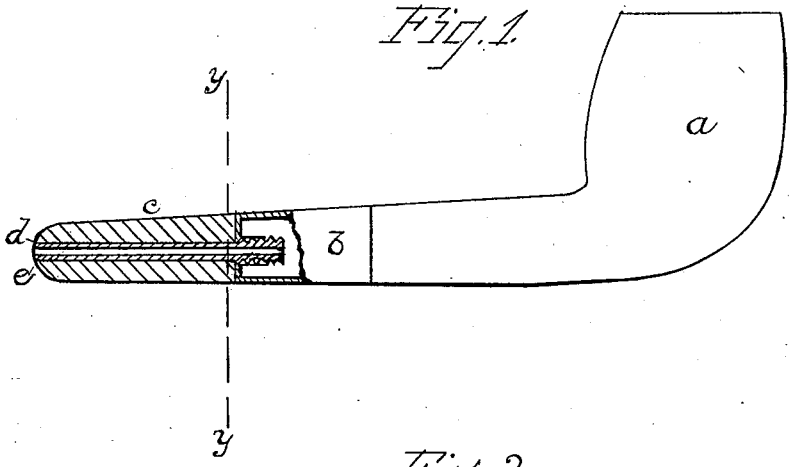


Fig. 2.

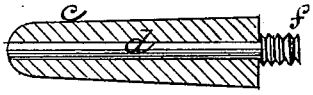
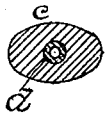


Fig. 3.



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UNITED STATES PATENT OFFICE.

FREDERICK J. KALDENBERG, OF NEW YORK, N. Y.

MOUTH-PIECE.

SPECIFICATION forming part of Letters Patent No. 265,613, dated October 10, 1882.

Application filed May 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK J. KALDENBERG, a citizen of the United States, residing at New York, in the county and State of New York, have invented a certain new and useful Improvement in Mouth-Pieces or Bits for Pipes, &c., of which the following is a specification.

My invention relates to improvements in mouth-pieces or bits for attachment to pipes or for use with cigars, and the improvement is more especially designed for mouth-pieces which are molded or otherwise formed out of a composite material consisting of several ingredients united together, such as celluloid, coralline, lignoid, &c.; and the object of my invention is to so construct the mouth-piece that the material of which it is composed will be preserved against the direct action of the heat and heated smoke that is drawn through it, and also to afford greater facility in mounting.

Heretofore this class of mouth-pieces or pipe-bits—that is, those made from plastic materials, such as rubber, celluloid, lignoid, xylonite, &c.—have been provided with a threaded end for screwing into the pipe-band. The cutting of the screw out of the material itself has been found very objectionable for several reasons, the most important of which are that the action of the saliva on the material soon causes the screw end to rot or decompose, thereby destroying and breaking off its thread and rendering the fastening useless. Again, where the mouth-piece and stem-band to which it is secured are made of an oval shape, as seen in Fig. 3, and the screw is cut upon the mouth-piece, it is a very difficult matter to cut the thread on the mouth-piece with corresponding accuracy to the internal thread on the stem-band, and considerable labor is often required to adjust the mouth-piece, after being screwed in, so as to make a tight joint and also bring the two oval edges into uniformity with each other.

The purpose of my invention is to overcome these difficulties; and to attain this end I make the mouth-piece with a smooth bore, (or without the usual screw-thread in the smoke-aperture for screwing it to the pipe-stem,) and into this aperture I insert a tube having a plain surface formed of metal or other suitable impermeable material, the said tube projecting beyond the aperture and having its projecting end screw-threaded externally to screw into the high band or stem of the pipe. By forming the screw on the end of a tube, as stated, I am enabled to dispense with the cutting of the screw on the material of which the mouth-piece is composed.

In the accompanying drawings, which serve to illustrate my improvement, Figure 1 is a side view of a pipe having my improved mouth-piece attached thereto, the stem-band and mouth piece being shown in section. Fig. 2 is a longitudinal section of the mouth-piece removed; and Fig. 3 is a cross-section of the mouth-piece, taken on line *y y*, Fig. 1.

Referring to Fig. 1, *a* is the pipe; *b*, the high band of metal which fits over the stem of the pipe, and which is provided with an internal screw-thread on its upper end, and *c* the mouth-piece, which is screwed into the band *b*. Instead of forming the screw on the mouth-piece for engagement with the stem-band, as has always been done where they are made from plastic compounds, I provide a tube, *d*, which is cast or otherwise formed out of block-tin, spelter, or other suitable metal, having a screw-thread on one of its ends, which is inserted through the bore or perforation *e* in the mouth-piece *c*. This tube extends to the top of the mouth-piece and serves to protect the inner surface of the mouth-piece from the direct action of the heat and smoke, which have a destructive effect upon the compound, causing a partial decomposition. As this decomposition takes place disagreeable odors and vapors are thrown off, which mingle with the smoke and are drawn into the smoker's mouth, producing an unpleasant taste. This objection is likewise overcome by the use of my improvement. Before inserting the metal tube into the mouth-piece it is dipped in a solution made by dissolving bits of the material or compound out of which the mouth-piece is made in wood-alcohol until the surface to be inclosed is quite covered, when it is driven in the mouth-piece down to the screw end *f*. In a short time the tube will become firmly embedded in the mouth-piece. The screw end *f* of the tube is then screwed into the stem-band *b*.

In mounting the oval mouth-pieces the tube

d is preferably first screwed into the stem-band, and the mouth-piece then forced down onto it. Heretofore it has been impossible to make a perfect joint where the mouth-piece and band connect, in the long oval form, without considerable labor, as sometimes the thread is so that if it screws in tightly the ovals are not uniform, and vice versa, so that often there is much labor in getting a tight joint and still preserving the uniformity of the ovals at the same time. By using the independent screw as formed on the tube this difficulty is entirely overcome, and the oval forms are as easily mounted as the round ones. Where the screw is formed on the mouth-piece it soon becomes useless, owing to the action of the heat and saliva on its exposed surface, and the mouth-piece is then of no value. By my improvement this is obviated, and a mouth-piece made of the plastic compounds is rendered more durable and as pleasant to use as those made out of pure amber. The tube may be made of any other suitable material than metal, if desired.

What I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a mouth-piece for pipes, having a tube arranged within the smoke-aperture and which projects beyond the lower end thereof, the inclosed portion of said tube having a smooth surface, and the projecting end provided with a screw-thread, substantially as and for the purpose set forth.

2. A mouth-piece having a tube of impermeable material cemented within the smoke-aperture and projecting therefrom, the projecting end only of said tube being screw-threaded, as and for the purpose set forth.

3. The combination, with the band *b* and mouth-piece *c*, of the tube *d*, provided with the screw *f*, substantially as and for the purpose set forth.

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Witnesses:
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