

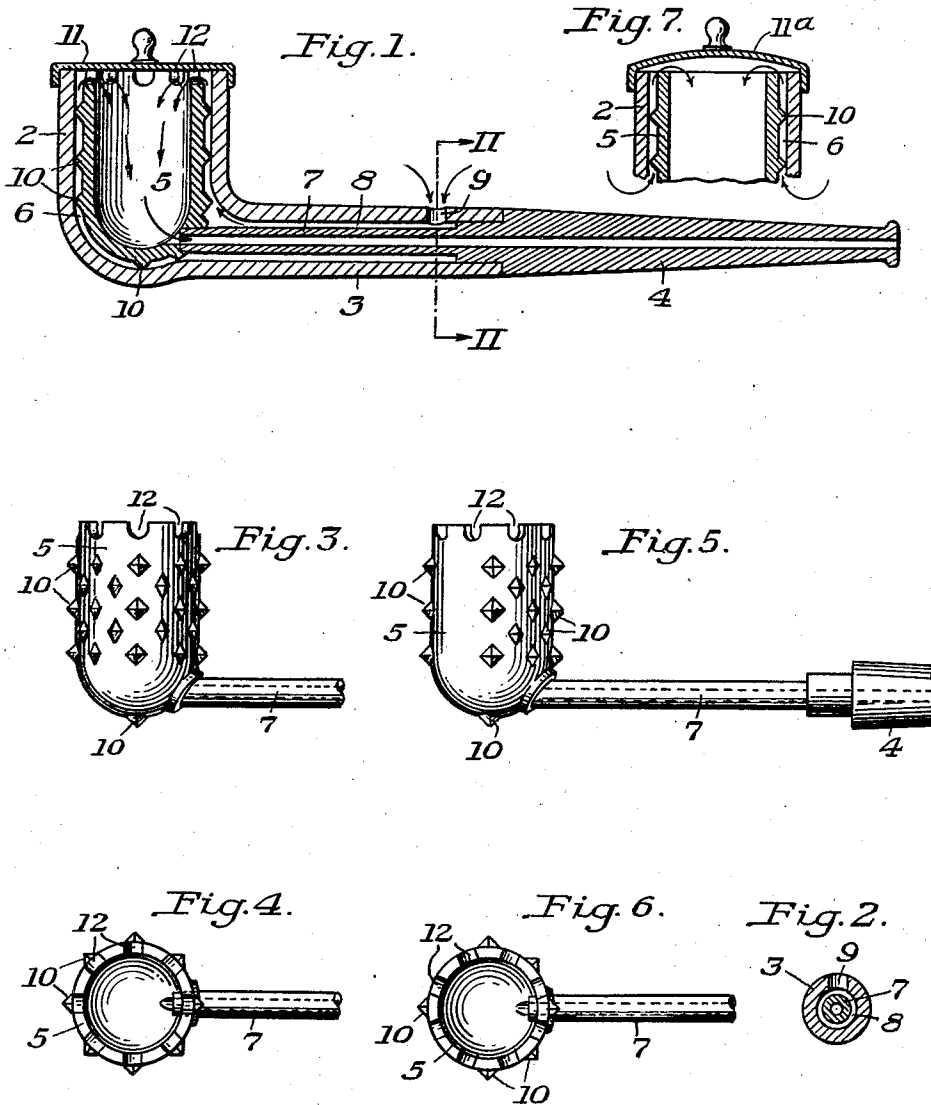
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SMOKING PIPE

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SMOKING PIPE

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This invention is an improvement in smoking pipes of that type in which cooling air circulation through the stem and between an outer and an inner bowl is provided. Prior constructions of various forms have utilized the features and expedients of a suction-induced draft through the stem, inducing flow of air inwardly around the smoke conduit, between an outer and an inner bowl, and downwardly through the inner tobacco holding bowl and finally through its outgoing smoke conduit. So much, generally, is old in this art.

Heretofore, constructions of such general type have been of more or less complicated and expensive designs, both as to plurality of elements, involved air circulation provision, location of and connection with the inner bowl, intricate cap constructions, and in other details rendering them more or less unsatisfactory and inefficient.

In my invention I have not only simplified the construction, but have improved such a pipe as to its reduced number of elements, and have provided novel features facilitating assemblage and separation, correct relation of the parts, regulated control of air circulation, and in other details, as hereinafter described. One such improvement is in the important feature of proper and desirably regular control of air circulation between the bowls to, and smoke circulation from, the inner bowl, for symmetrical and balanced cooling.

In the drawing showing one preferred form of the invention:

Fig. 1 is a longitudinal vertical section of the pipe;

Fig. 2 is a cross section on the line II—II of Fig. 1;

Fig. 3 is a side view of the inner bowl and a portion of the smoke conduit;

Fig. 4 is a plan view thereof;

Fig. 5 is a view like Fig. 3 showing a modified construction;

Fig. 6 is a plan view thereof;

Fig. 7 is a partial sectional view like Fig. 1 showing a modification.

The pipe as a whole is of conventional design, as to its exterior. It comprises a main outer bowl 2 having a partial stem extension 3 with which is telescopically or otherwise connected the outer additional stem 4, of any desirable form. Within the bowl 2 is nested the inner tobacco containing bowl 5, conforming generally to the inner contour of bowl 2, with an intervening continuous air circulation space 6.

Outer stem 4 is connected with the inner bowl

by a reduced extension 7, leaving an intervening annular air circulation space 8, communicating with the atmosphere by inlet port 9 of stem 3.

The outer side and bottom of bowl 5 are provided with variously distributed spacing and bracing abutments 10, fixedly holding the inner bowl in position by contact with the inner wall surfaces of the main bowl. Such abutments may be of any suitable number and shape, as round, square, diamond or coniform, variously distributed for correct maintenance of position.

By distributing them alternately, preferably in zigzag arrangement as shown, the air circulation passage between the bowls is constantly in an alternating path between the bowls, during smoking. Both bowls are closed at the top by a removable cover or cap 11, and the upper edge of the inner bowl may terminate slightly below the outer bowl edges, or may have its edge recessed, as at 12, for inward air flow, under draft through the connected stem.

As shown in Fig. 7 the upper edge of inner bowl 5 may however be straight across, extending co-extensively to the plane of the upper edge of bowl 2, if desired. In such case ample clearance space for air circulation may be had by merely arching the cap 11a, as shown.

With either construction, the inner bowl will be fixedly positioned and held within the outer main bowl, maintaining the intervening annular and bottom circulation space 6 normally constant, and the flow of incoming air will be constantly alternated, and slightly retarded, by the interfering spacing abutments 10.

Subject to its natural tendency to take the shortest course, as through the inner or rear portion of channel 6, under suction draft applied towards the top of the bowls, and for better or equal distribution, the abutments may be arranged as suggested in Fig. 5. Thus, assuming a cluster of abutments on the side of the inner bowl only, towards the stem 3 and its air intake channel 8, such arrangement of more numerous abutments will effect a degree of air flow retardation and compensation therefor, with relatively freer air flow at the outer side, and resulting equalization all around. Such advantage may thus be effected by materially reducing or eliminating some of the abutments at the opposite side, for freer air flow, providing a balanced or equal cooling all around, as shown.

The resulting advantage is not only in reducing the temperature of the outer bowl generally, but also in avoiding excessive heating, as at its outer side, because of more equal distribu-

tion of cooling air all around the surfaces of both bowls. With use of the diamond shape abutments, as shown, transmission of heat by induction from the inner bowl to the outer, due to the point contacts, is reduced to a minimum.

A further advantage, due to such equal air supply, is in assisting regular and even combustion of the contained charge of tobacco.

The construction and use of the pipe as above described, will be readily understood and appreciated. Exclusive of the closing cap, it comprises but three main elements, easily made and assembled or separated, as for cleaning, and is of economical manufacture, with additional bracing strength.

The pipe as a whole may be changed or modified in shape, design, size and material, while retaining the significant elements of the double bowl construction and its advantages, within the scope of the following claims.

What I claim is:

1. In a smoking pipe as described, the combination with the main bowl and its stem having an air inlet port and a channel leading to the bowl interior adjacent the air inlet port, and a suction conduit, an inner bowl connected with the suction conduit having on its side closest to the air inlet supply a maximum group of spacing abutments for air circulation impedance and

on its opposite side a minimum group of spacing abutments providing balanced air circulation cooling space between the bowls, and a closing cap for the main bowl in non-closing relation with the inner bowl when the cap is in closing position on the main bowl.

2. In a smoking pipe as described including an outer main bowl, the combination with the stem thereof having an air inlet opening leading to the inner side portion of the outer main bowl, of an inner bowl provided on one exterior side face adjacent the air supply with a maximum number of projecting spacing abutments and on its opposite side with a minimum number of spacing abutments engageable with the inner surfaces of the main bowl for providing balanced air circulation cooling space between the bowls.

3. In combination with an outer bowl and air supply stem, an inner bowl for a smoking pipe provided on one of its exterior side faces adjacent the air supply with a maximum number of spacing abutments and on its opposite side remote from the air supply with a minimum number of spacing abutments for contact engagement with the interior surface of the outer bowl for providing balanced air circulation cooling space between the bowls, and having a suction draft connection with the stem.

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