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S. BELLINGHIERI

2,260,206

PIPE SEASONER AND REJUVENATOR

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Fig. 1.

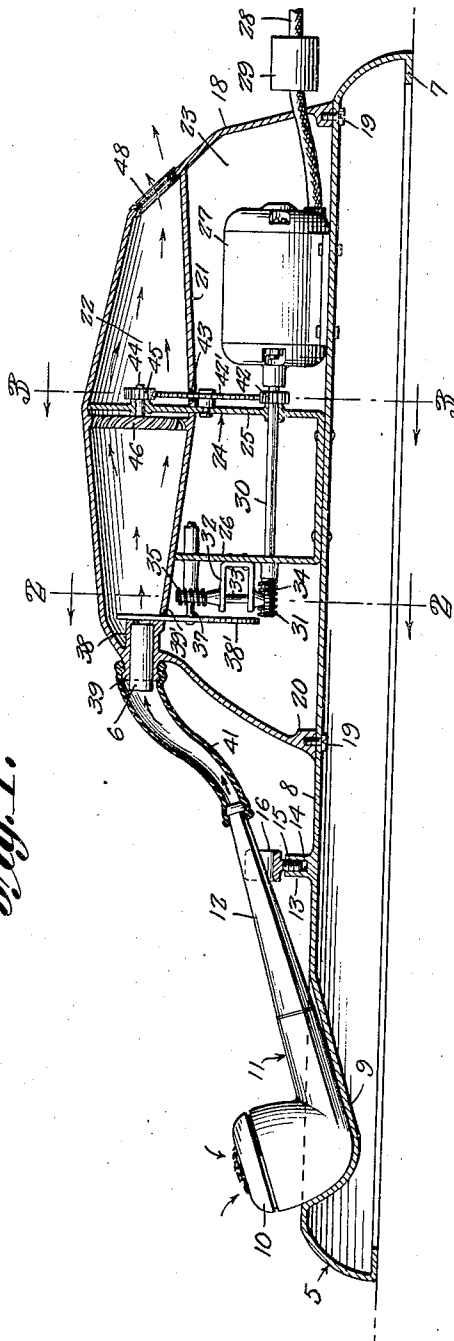


Fig. 2.

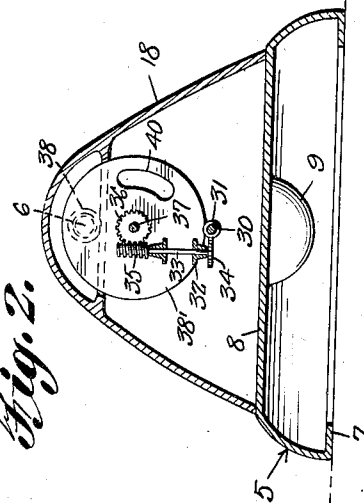
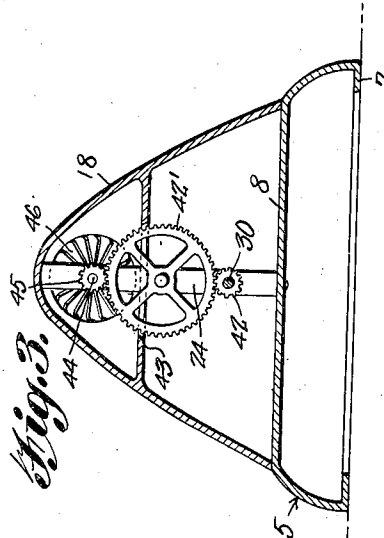


Fig. 3.



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WITNESS

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PIPE SEASONER AND REJUVENATOR

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6 Claims. (Cl. 131-172)

My invention relates to an article of manufacture for breaking in tobacco pipes.

An important object of my invention is the provision of a device for breaking in a smoker's pipe that is extremely efficient in the performance of its duties.

Another object of my invention is the provision of a device for breaking in a smoker's pipe that is adapted to break the pipe in slowly and in a manner not to overheat or burn the same.

Yet another object of my invention is the provision of a device for breaking in a smoker's pipe that will reproduce in a mechanical manner the smoking operation as done naturally by the smoker.

Still another object of my invention is the provision of a device for breaking in a smoker's pipe that is simple in construction, efficient in operation and inexpensive to manufacture.

A further object of my invention is the provision of a device for breaking in a smoker's pipe wherein a rejuvenescence of the pipe may be attained.

Other objects and advantages will be apparent during the course of the following description.

In the drawing, forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a vertical longitudinal sectional view of a device embodying my invention,

Figure 2 is a vertical transverse sectional view, taken on the line 2-2 of Figure 1, and

Figure 3 is a vertical transverse sectional view, taken on the line 3-3 of Figure 1.

In the accompanying drawing, wherein for the purpose of illustration, is shown a preferred embodiment of my invention, the numeral 5 designates a base member, of substantially ellipsoidal formation having a flat top 8 and an inwardly extending circumferential base flange 7. The top 8 is formed at one end thereof with an indentation 9 which is adapted to receive the bowl 10 of the pipe 11. The deepest portion of the indentation 9 is nearer the end of the base member 5 so that the stem 12 of the pipe extends angularly above the top surface 8 of the base. A boss 13 is formed on the base a substantial distance rearwardly of the indentation 9 and has a screw threaded cul-de-sac 14 therein which receives the shank 15 of the pipe stem supporting bracket 16. The bracket 16 may be rotated to elevate or lower the stem 12 of the pipe.

A shell 18 is secured to the end 17 of the base

by means of bolts 19 which extend upwardly through the top 8 into the bosses 20 formed at requisite intervals around the base of the shell. The shell is formed with a laterally disposed partition 21 which divides the shell into an upper compartment 22 and a lower compartment 23. A substantially U-shaped bracket 24 is riveted, or otherwise secured, to the top 8 of the base. One arm 25 of the bracket 24 is substantially longer than the other arm 26 thereof, and extends upwardly through the partition 21 to terminate against the top of the shell 18. The shorter arm 26 terminates against the partition 21.

A self-starting electric motor 27 is riveted or otherwise secured to the top of the base 5 and within the rearward end of the lower compartment 23. The motor is connected to any suitable source of electrical power by means of the cable 28, and interposed between the source of power and the motor is a conventional flasher 29 adapted to alternately turn the motor off and on at regular intervals during the time it is energized. The drive shaft 30 of the motor extends through the arms 25 and 26 of the bracket 24 and terminates forwardly of the bracket in a worm 31. A U-shaped bracket 32 is riveted to the arm 26 at substantially its middle, and extending through aligning openings in its opposite arms is a shaft 33 which carries a worm wheel 34 on its lower end in engagement with the worm 31. The upwardly extending end of the shaft 33 terminates in a worm 35 which engages for rotation a worm wheel 36 supported on the spindle 37 which is rotatably journaled to the upper end of the arm 26. The forward end of the upper compartment 22 is formed with a tube-like portion 38 which terminates exteriorly of the shell in a shank 39. The larger end 40 of a tapered, flexible tube 41 is positioned over the shank 39, and has the smaller end 42 thereof fitted over the end of the stem 12 of the pipe 11. A disk 38' is mounted for rotation on the end of the spindle 37, and the upper portion thereof projects upwardly into the compartment 22 through a slot 39 in the lateral partition 21. The disk is provided with an elongated arcuated slot 40 adapted to intermittently register with the inner end of the tube 38. A conventional smoke filter 6 is positioned in the bore of the tube 38.

The circular gear 42 is keyed to the shaft 30 rearwardly of the arm 25, and is inmeshed with a circular gear 42' journaled to the arm 25. The gear 42' extends into the compartment 22 through a slot 43 provided in the lateral

partition 21. A shaft 44 is carried by the arm 25 at substantially the middle of the compartment 22 and has a circular gear 45 keyed on one end thereof, and inmeshed with the circular gear 42. A fan 46 is journaled on the forward end of the shaft 44 and draws air through the filter 6 when the slot 40 is in register therewith.

The operation of my device is as follows:

The pipe 11 is positioned in the indentation 9 with the stem extending rearwardly thereof and supported by the bracket 16 which is rotated to the requisite level to properly position the stem 12 with respect to the flexible tube 41. The device is adapted to break in any size or type of pipe and inasmuch as the parts attached to the base are of standard size and shape I find it convenient and necessary to provide the adjustable means for the stems of various types of pipes in order to properly adapt the same to the flexible tube 41. The motor 27 positioned in the rear of the lower compartment 23 is caused to be energized intermittently by the flasher 29, and in the intervals during which it is energized, the fan 46 will be caused to rotate to draw smoke through the upper compartment 22 from the front portion thereof, and to discharge the same through the screen filter 48.

The forward end of the compartment 22 is in direct communication with the bowl of the pipe through the bore of the tubular member 38, flexible tubing 41, and the stem 12 of the pipe. When the motor is energized the worm gear 31 will effect the rotation of the disk 38' and will cause the arcuate slot 40 in the disk to register with the bore of the tube 38 at regular spaced intervals. During the interval that the slot 40 is in register with the tube, the fan 46 will cause a current of air to be drawn from the atmosphere through the lighted tobacco in the bowl of the pipe. The smoke from the tobacco will be drawn up the stem through the flexible tube 41, filter 6 and into the upper compartment 22 where it will be discharged through the screen filter 48. Upon further rotation of the disk the slot 40 will pass out of register with the tube and the drawing of air through the pipe by the fan will cease until the slot 40 again moves into register with the tube 38. I have found that continuous rotation of the disk 38' in a manner to bring the slot 40 into uninterrupted intermittent register with the bore of the tube 38 will produce overheating of the bowl 10 and destroy the efficacy of the "breaking in" process. Therefore, to more nearly simulate the actual manner of manual smoking of the pipe, I have provided the flasher 29 to periodically stop the motor 27, whereby the slot 40 will register with the bore of the tube 38 four or five successive times, after which time the motor will stop for a short interval to permit the pipe to smolder before again being subjected to the suction from the fan. The above operation will cause four or five puffs of smoke to be drawn from the pipe, and thereafter followed by a period of inactivity, after which period a series of four or five puffs of smoke will again be drawn from the pipe. This procedure will not only prevent overheating of the motor and a substantial saving in electricity, but will prevent the pipe from becoming overheated or burning, and will reproduce the actual manual smoking technique in a mechanical way.

It is a well known fact that a tar, comprising a tacky combination of nicotine, saliva and to-

bacco residue, frequently collects in the bowl of the pipe after the same has been continually smoked for several days. The smoking of the pipe, when in this condition, will frequently react adversely to the smoker, and may be accompanied by sensations of nausea, dizziness, headaches, etc.

If the "strong" pipe is placed in the indentation 9 and with the stem thereof connected to the flexible tube 41, the device hereinbefore described may be used to rejuvenate and sweeten the same, a small amount of pipe cleaning fluid is poured into the empty bowl, and upon rotation of the fan 46, the fluid will dissolve the tar and be drawn through the stem and into the filter 6, where it will be retained and prevented from entering the shell 18 and covering the mechanism of the device.

It may thus be seen that not only is my invention adapted to break in a new pipe but it may also be used to effectively clean and sweeten an old pipe that has become strong and vile tasting by reason of the accumulation of tobacco tar in the bowl.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the appended claims.

Having thus described my invention, I claim:

1. A device for slowly breaking in a smoker's pipe comprising a housing having an inlet and an outlet port, means to couple a pipe stem to the inlet port of the housing, means to intermittently open and close the said inlet port, suction means located intermediate the said inlet and outlet ports adapted to draw air through the pipe when the said second mentioned means opens communication with the inlet port, and means for automatically interrupting the operation of the suction means and of the second mentioned means at regularly spaced intervals of time.

2. A device for slowly breaking in a smoker's pipe comprising a housing having an inlet and an outlet port, means to couple a pipe stem to the inlet port of the housing, an obturator located in juxtaposition with the inlet port for effecting intermittent opening and closing thereof, suction means arranged intermediate of the inlet and outlet ports adapted to draw air through the pipe when communication with the inlet port is permitted by the said obturator, drive means connected with both the suction means and obturator for simultaneously actuating the same in a manner whereby the obturator will permit communication of the suction means with the inlet port at regularly spaced intervals of time, and separate means for automatically interrupting the operation of the drive means for a selected interval of time at regularly spaced intervals of time.

3. In a device for slowly breaking in a tobacco pipe, a housing formed with a transverse partition for dividing the same into an upper and lower chamber, which upper chamber constitutes a smoke passage having an inlet port at one end and an outlet port at the opposite end thereof, means for coupling a pipe stem to the inlet port of the housing, a motor disposed within the lower chamber of the housing, a fan mounted within the upper chamber of the housing intermediate the inlet and outlet ports, a disk element jour-

nalled for rotation in the lower chamber of the housing, the upper portion of the disk extending into the smoke passage and covering the inlet port, and the portion of the disk adapted to move across the inlet port having an opening for inter-
mittently registering with the inlet port during the rotation of the disk to permit the fan to draw air through the pipe, and gear means connecting the motor with both the fan and disk whereby actuation of the motor will effect simultaneous actuation of the fan and disk.

4. In a device for slowly breaking in a tobacco pipe, a housing formed with a transverse partition for dividing the same into an upper and lower chamber, which upper chamber constitutes a smoke passage having an inlet port and an outlet port at its opposite ends, means for coupling a pipe stem to the inlet port of the housing, a motor disposed within the lower chamber of the housing, a fan mounted within the upper chamber of the housing intermediate the inlet and outlet ports, a disk element journaled for rotation in the lower chamber of the housing, the upper portion of the disk extending into the smoke passage and covering the inlet port, and the portion of the disk adapted to move across the inlet port having an opening for intermittently registering with the inlet port during the rotation of the disk to permit the fan to draw air through the pipe, gear means connecting the motor with both the fan and disk whereby actuation of the motor will effect simultaneous actuation of the fan and disk, and means for automatically interrupting the operation of the motor to effect cessation of the movements of the fan and disk at regularly spaced intervals of time.

5. In a device for slowly breaking in a tobacco pipe, a housing formed with a transverse partition for dividing the same into an upper and lower chamber which upper chamber constitutes a smoke passage having an inlet port at one end and an outlet port at its opposite end, means for coupling a pipe stem to the inlet port of the housing, a suction means disposed within the

smoke passage for drawing atmospheric air through the inlet port and discharging the same through the outlet port, a disk journaled for rotation about a horizontal axis having a portion thereof extending into the smoke passage to close the inlet port, rotation of the disk causing the peripheral marginal edge of the disk to move across the inlet port and to effect intermittent registering between an opening in the disk and the inlet port, said opening being relatively small as compared with the portion of the disk effecting closing of the port, and means for simultaneously actuating both the suction means and disk whereby the suction means may draw air through the pipe when the opening in the disk moves into register with the inlet port.

6. In a device for slowly breaking in a tobacco pipe, a housing formed with a transverse partition for dividing the same into an upper and lower chamber, which upper chamber constitutes a smoke passage having an inlet port at one end and an outlet port at its opposite end, means for coupling a pipe stem to the inlet port of the housing, a suction means disposed within the smoke passage for drawing atmospheric air through the inlet port and discharging the same through the outlet port, a disk journaled for rotation about a horizontal axis and having a portion thereof extending into the smoke passage to close the inlet port, rotation of the disk causing the peripheral marginal edge of the disk to move across the inlet port and to effect intermittent registering between an opening in the disk and the inlet port, said opening being relatively small as compared with the portions of the disk effecting closing of the port, a motor disposed within the lower chamber of the housing including a driven shaft having a driving connection with both the disk and suction means, and circuit and control means for automatically interrupting the actuation of the motor for a definite interval at regularly spaced intervals of time.

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