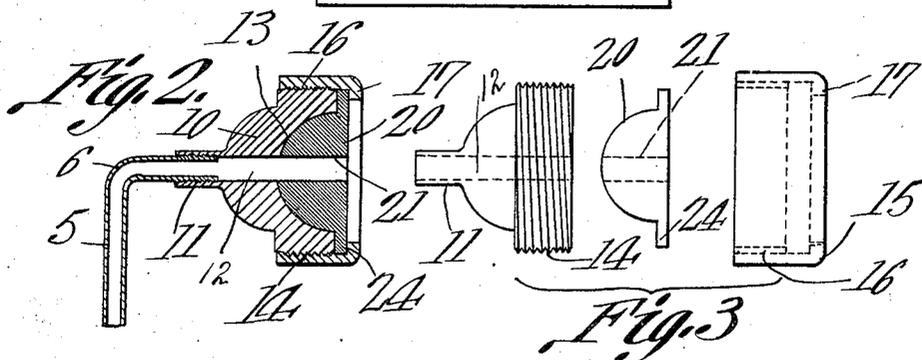
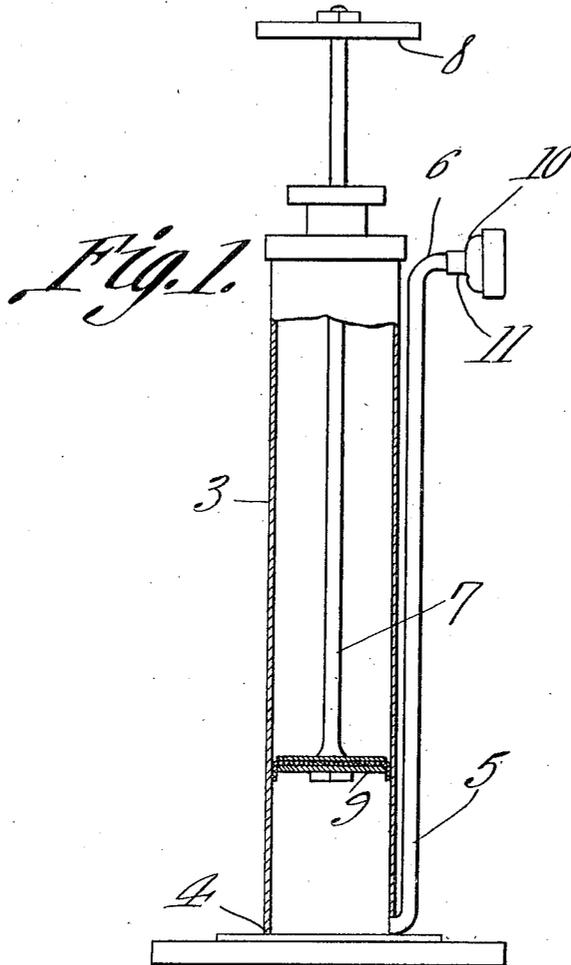


J. M. SIMMONS.  
 PIPE CLEANER.  
 APPLICATION FILED MAR. 29, 1911.

999,346.

Patented Aug. 1, 1911.



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES M. SIMMONS, OF WICHITA, KANSAS.

## PIPE-CLEANER.

999,346.

Specification of Letters Patent.

Patented Aug. 1, 1911.

Application filed March 29, 1911. Serial No. 617,772.

*To all whom it may concern:*

Be it known that I, JAMES M. SIMMONS, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented a new and useful Pipe-Cleaner, of which the following is a specification.

This invention relates to smoking pipes, and more especially to the cleaners therefor; and the object of the same is to produce a manually operated and conveniently located air pump whose suction end is adapted for making quick and close contact with either the bowl or the stem of a smoking pipe. This object is carried out by constructing the device as hereinafter more fully described and claimed, and as shown in the drawings, wherein—

Figure 1 is a side elevation of this device complete, parts being broken away. Fig. 2 is an enlarged longitudinal section of its suction end. Fig. 3 is a side elevation of the component parts of such end.

The body or pump portion of this device comprises a barrel 3 secured at one end as at 4 to a suitable support, a piston rod 7 extending through the head of said barrel and having a handle 8, and a piston 9 at the inner end of this rod. Said piston may have a valve closing in one direction if it is desired to create air pressure, or closing in the other direction if it is desired to create a vacuum, but perhaps a simpler and equally serviceable arrangement is to have the piston without any valve so that air pressure could be created by depressing the piston and a vacuum could be created by raising it. With the lower end of the barrel communicates a pipe 5 preferably leading up outside the barrel and making an elbow 6 at a convenient height from the floor when the pump stands upright as shown, and to the end of said elbow is attached the coupling or suction end of my device which forms the gist of the present invention.

The suction end is composed of the three elements best seen in Fig. 3. The numeral 10 designates the body element having a collar 11 at its rear end connected with the elbow 6 and an opening 12 through its axis communicating with the pipe 5; and this member is formed with a hemispherical socket 13 in its front end and with threads 14 around its body and is made of metal. The numeral 15 designates a collar having internal threads 16 adapted to engage those

on the body member, and having around its outer end an inturned flange 17 leaving its extremity wide open in a mouth of considerable size as shown. The numeral 20 designates a gasket which is preferably a solid piece of rubber excepting for an opening 21 through its center as shown. In shape this gasket may be said to be hemispherical and of a size to fit the socket in the body member, and around its edge is a radially projecting flange 24. The parts are assembled as best seen in Fig. 2, when the body of the gasket fits the socket in the body member, its flange rests against the extremity of said member, and the flange of the collar clamps it in place and holds all parts together.

In operation the smoking pipe or other article to be cleansed has the mouth of its bowl or one of its extremities pressed against the exposed face of the gasket by hand, whereby the material of said gasket will be compressed or embedded slightly and a practical air-tight connection will be made between it and said mouth. With the other hand the operator then manipulates the handle of the pump to create air pressure or air suction according as he desires to blow air through the pipe or to suck air out of it, and it will be found that with the parts proportioned about as shown an extremely strong blast of air can be set up in either direction. Or if the pump be without valves the piston can be moved first in one direction and then in the other, and the result will be that any sediment that may have lodged within the pipe will be dislodged in either one direction or the other. If it be desired to clean the stem of the pipe, the same can be inserted into the bore of the gasket, and the elastic material of which it is composed will cause it to contract around said stem and make a practically air-tight joint between them. Then the air pressure or air suction device is manipulated in the manner above described, and the stem can also be cleansed quickly and freed from any obstruction that may exist therein.

I do not limit myself to the precise details of parts other than as hereinafter mentioned, nor to the materials and proportions although I prefer the relative sizes shown. It will be of convenience to the tobacconist to have this pump secured to the floor in rear of his counter, at any convenient point, so that when a customer calls with a pipe that has become fouled or

stopped up he can take it and press its bowl against or insert its stem into the gasket, and with a few manipulations of the handle of the pump he can clean the same thoroughly and quickly. However I do not desire to be confined to this specific use of the device.

What is claimed as new is:—

1. In a pipe cleaner, the combination with a pump, and a pipe leading therefrom; of a suction end comprising a body member having a socket in its face and a central opening therethrough, said opening being in communication with said pipe, a collar adapted to engage said body member, and a gasket of compressible material adapted to fit in the socket of said body member and be clamped thereon by the collar, said gasket having an opening in alinement with the opening of the body member.

2. In a pipe cleaner, the combination with a pump, and a pipe leading therefrom; of a suction end comprising a body member hav-

ing a hemispherical socket in its face and a central opening from the bottom of said socket connected with said pipe, said member being externally threaded, a collar having internal threads adapted to engage those on said member and having an inverted flange around its front end, and a gasket of soft rubber having a hemispherical body of a size to fit the socket in said body member and a radial flange to be clamped between said member and the flange of said collar, the gasket having an opening communicating with that in the body member, the whole for use substantially as described.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES M. SIMMONS.

Witnesses:

C. W. SIMMONS,

J. J. WRIGHT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."