

J. PFISTER.
PIPE CLEANER.

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1,057,771.

Patented Apr. 1, 1913.

Fig. 1.

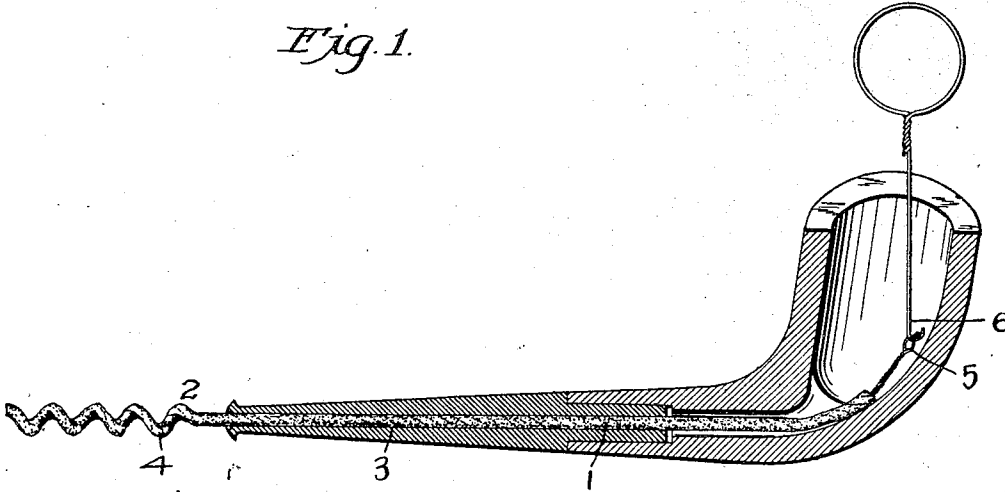


Fig. 2.



WITNESSES

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JACOB PFISTER, OF ROCHELLE PARK, NEW JERSEY.

PIPE-CLEANER.

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To all whom it may concern:

Be it known that I, JACOB PFISTER, citizen of the Republic of Switzerland, and resident of Rochelle Park, in the county of Bergen and State of New Jersey, have invented a certain new and useful Pipe-Cleaner, of which the following is a specification.

This invention relates to pipe cleaners.

Tobacco pipes are difficult to keep clean. Ordinary use causes a deposit to be formed, and attempts to clean out the stem by pushing a cleaning wire into one end are not satisfactory, because if the cleaning wire fits the bowl tightly like a piston, the gummy condensations will be merely propelled *en masse* toward the bowl of the pipe, while on the other hand, if the cleaner fits loosely like the usual piece of chenille, it can only gather a small portion of the gummy deposits on its surface, before becoming merely a distributing agent, spreading the deposit over the entire inside surface of the bore, rather than removing it. Thus, the usual practice is to take the pipe to pieces and pass a number of chenille cleaners through the stem from end to end. But this process is not thorough, because it only removes the softer deposits which are absorbed by the fibrous chenille. Moreover the pushing of a slender and necessarily frail chenille wire through the pipe stem prevents anything but a comparatively loose fitting chenille wire being used, and the grasping of the fouled end by the fingers in pulling the cleaner through the stem is an untidy and unpleasant feature of the operation.

The object of the present invention is to provide a pipe cleaner which is simple and cheap to make and absolutely thorough in action, which removes all or substantially all of the gummy deposits at one operation, and which is convenient and satisfactory in its method of use.

With these objects in view the invention consists in the improved pipe cleaner as hereinafter set forth.

In the drawings, Figure 1 is a sectional view of a pipe containing a cleaner embodying the principles of this invention. Fig. 2 shows a slightly modified cleaner.

Constructions embodying the invention will include a slender and somewhat resilient or flexible wire body 1, preferably in the form of the usual twisted chenille of commonly known form, and on the end of this wire body is formed a portion 2 constituting

a piston which will closely fit the bore 3 of the pipe stem and forcibly scrape or push through the largest diameter of the bore, thus removing all the gummy deposits, even those which have been more or less hardened. Constructions of this piston may vary but the best constructions will include a spiral 4 formed by curling the chenille of which the cleaner is composed. This spiral will be formed large enough to fit the largest bores of tobacco pipes, and in fact larger bores than are ever used in tobacco pipes. The spiral, however, has the capacity of drawing down to a smaller diameter, and will exactly accord itself to the particular bore in which it is used.

Constructions embodying the invention will also include an eye 5 formed on the wire body of the pipe cleaner, this eye together with the wire body being sufficiently small, so that the cleaner may be pushed into any pipe stem with the eye in advance, and the wire body of the cleaner will furthermore be long enough so that the eye can be passed clear through the stem from end to end thereof, without the piston portion entering the stem at all.

There is further provided a hook 6 connected to the eye 5 in the use of the device, but which can be disconnected from the eye during the time that the latter is being pushed into the pipe stem as already described. When, however, the wire body of the cleaner has been projected into the pipe stem as far as possible, the eye 5 will be visible and accessible in the bowl. The hook is now inserted in the bowl, and reengaged in the eye, and the latter drawn up and outward through the bowl. The wire can then be pulled through with great force and strength, and the piston drawn forcibly into and through the stem, to the diameter of which it accords itself, as already described. The advance portion of the piston will separate all the gummy deposits from the stem, and the latter are carried forward, the portions of the piston farther back being comparatively clean and serving to give a final wiping off action to the bore. Accordingly all the deposits are removed in one action of the piston. This is due to the fact that the piston is pulled through the bowl with considerable force which has not been possible so far as I am aware in any construction heretofore proposed, because heretofore the piston has required to be pushed into the

stem before it can be withdrawn. Any considerable force cannot be transmitted through a wire by a push. Above all, the gummy deposits are not again redistributed over the interior wall of the bore, as would be the case where the piston is moved back and forth. On the other hand, the piston is drawn out through the bowl and all of the deposits are carried with it, and the same action of having the front part of the piston followed up by the cleaning action of the after parts, is preserved to the completion of the action, that is to say, until the pipe stem is absolutely clean from the mouthpiece clear through to the bowl. Not only are the gummy deposits removed in a solid mass or body in this way, but the interior of the pipe is prevented from being wiped over by any portions of the piston which have been in the least fouled, as will be the case with the usual pipe cleaners heretofore used.

The device is so cheap that it may be thrown away after one use.

The hook 6 is preferably normally connected with the eye 5 in which condition parts will not become separated and lost. If desired the hook may be pinched downward slightly to hold it with more security on the eye, but not so firmly but that it may be readily separated for use.

In place of having the piston formed of twisted chenille as already described, the chenille may be made on a known machine so that the fibers are either longer or denser at one end, forming a piston 2'. In this way an effect is obtained substantially similar to that already described. In like manner the eye may be formed in various ways either by separating the two wires of the chenille slightly, thus forming a sort of loop as in

Fig. 1, or bending over the end of the chenille wire as shown in Fig. 2 or in other ways. The gist of the invention consists in having a piston with a slender extension of greater length than the stem of the pipe and having an eye at its forward end in which a hook is detachably engaged or adapted to be engaged, the stem being adapted to be used as already described, so as to clean out the pipe from end to end as already pointed out.

What is claimed is:—

1. A pipe cleaner comprising a wire body having an eye at one end, both eye and body having a diameter adapted to be pushed eye end first through an ordinary pipe stem, said wire body further having a piston at the other end, the eye and the forward end of the piston being separated by an intervening length greater than the length of an ordinary pipe stem, and a hook cooperating with said eye to pull the whole body and piston through the stem and bowl as and for the purposes set forth.

2. A pipe cleaner comprising a wire chenille body having an eye at one end, both eye and body having a diameter adapted to be pushed eye end first through an ordinary pipe stem, said wire body further having a piston at the other end, the eye and the forward end of the piston being separated by an intervening length greater than the length of an ordinary pipe stem.

Signed at New York, in the county of New York and State of New York, this eleventh day of July, A. D. 1912.

JACOB PFISTER.

Witnesses:

ALFRED W. PROCTOR,
RAY LEVY.