

No. 798,169.

PATENTED AUG. 29, 1905.

F. W. COOLEY.
PIPE STEM CLEANER.
APPLICATION FILED JAN. 9, 1905.

Fig. 1.

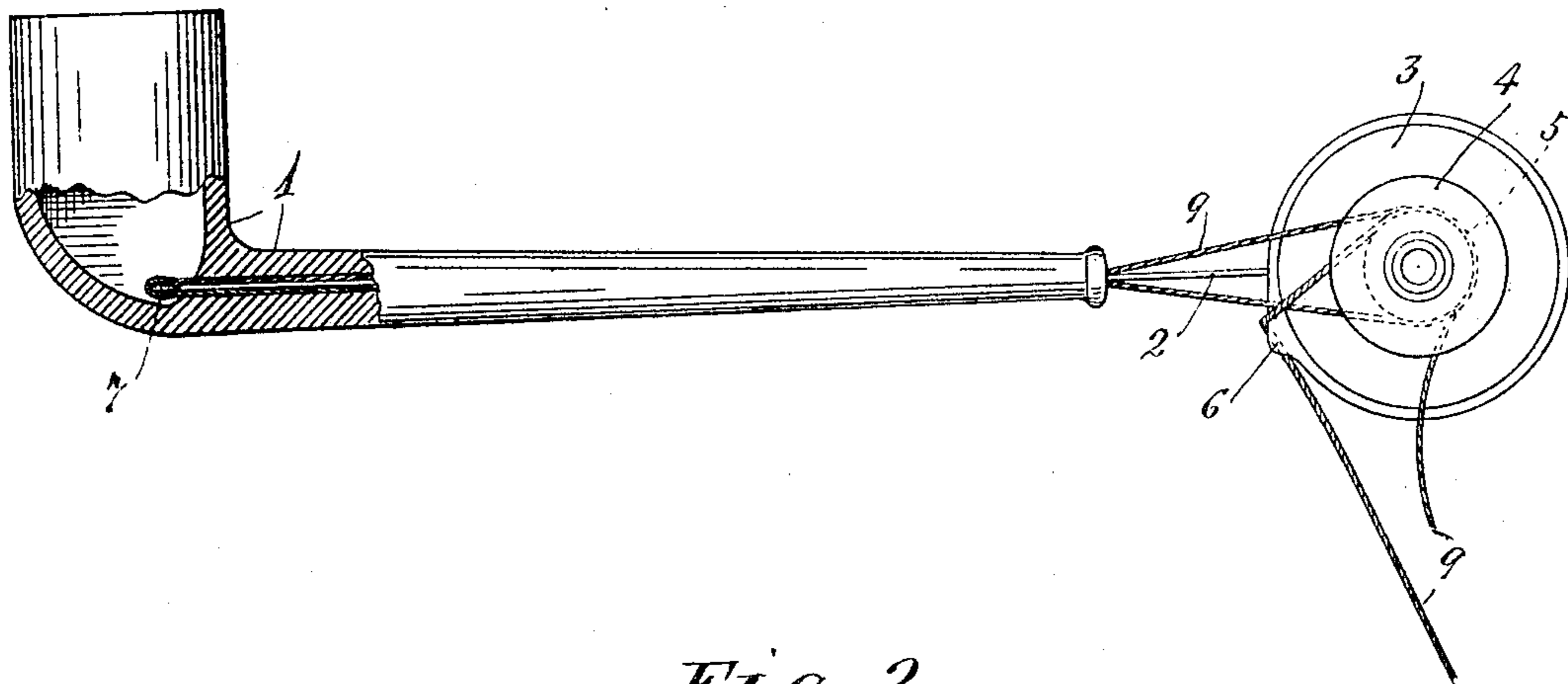


Fig. 2.

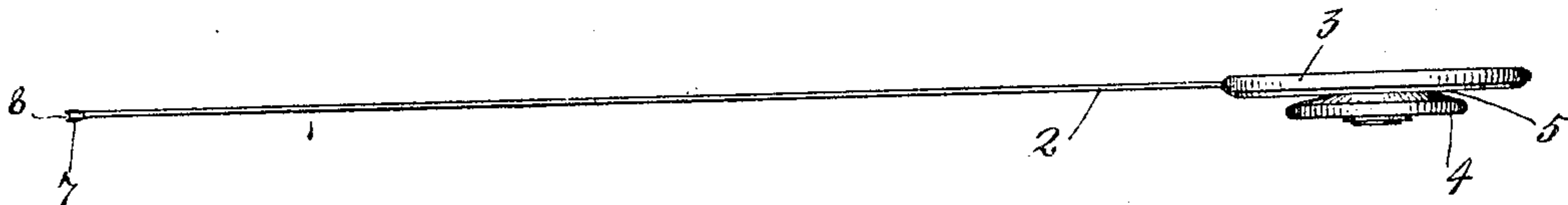


Fig. 3.

Fig. 4.

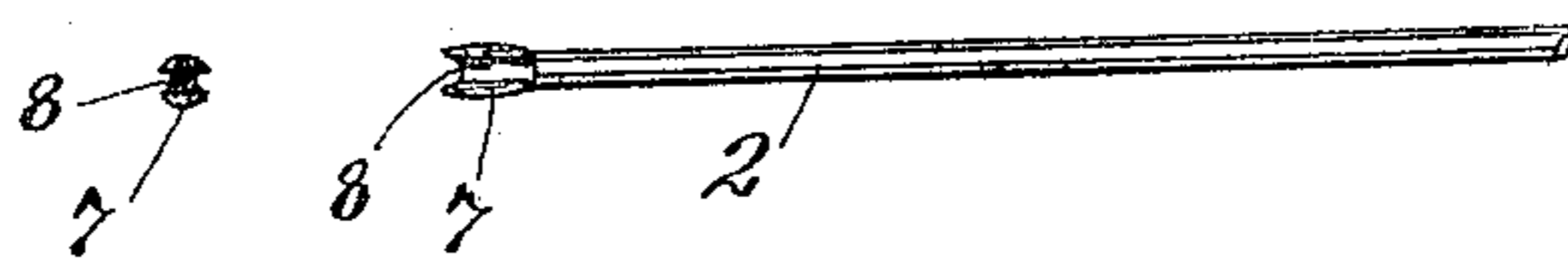
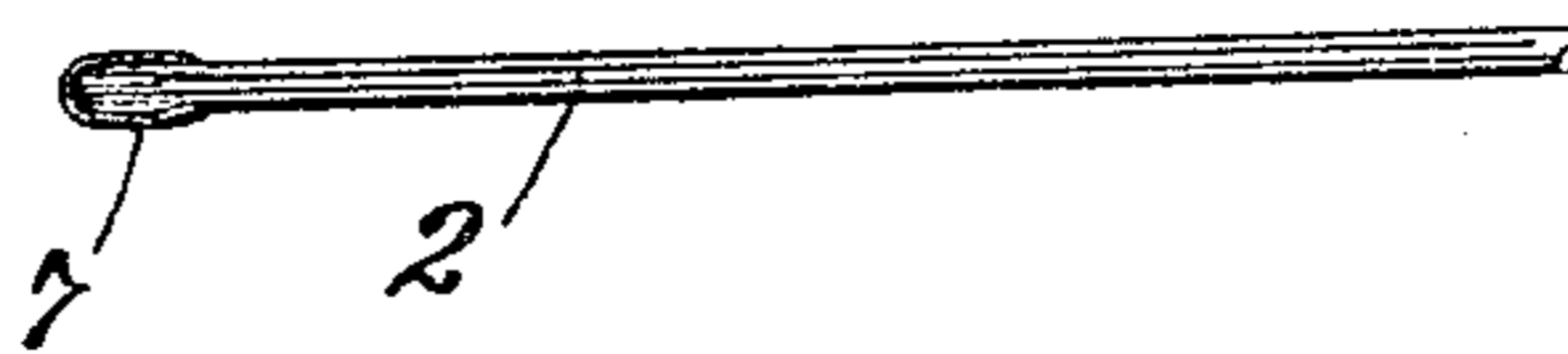


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRED W. COOLEY, OF MINNEAPOLIS, MINNESOTA.

PIPE-STEM CLEANER.

No. 798,169.

Specification of Letters Patent.

Patented Aug. 29, 1905

Application filed January 9, 1905. Serial No. 240,193.

To all whom it may concern:

Be it known that I, FRED W. COOLEY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Pipe-Stem Cleaners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention has for its object to provide a simple and efficient pipe-stem cleaner; and to this end it consists of the novel devices and combination of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a view in side elevation, with some parts sectioned, showing my improved device in use. Fig. 2 is an edge elevation of the pipe-stem cleaner removed from working position and with the cleaning-cord removed therefrom. Fig. 3 is a view corresponding to Fig. 2, showing the end portion of the flexible cleaning-rod, said part being shown on an enlarged scale. Fig. 4 is an end elevation of the part shown in Fig. 3, and Fig. 5 is a side elevation of the parts shown in Figs. 3 and 4.

The numeral 1 indicates a pipe which, as shown, has a straight stem.

The numeral 2 indicates a long flexible cleaning-rod, preferably formed from spring-steel wire. At one end this cleaning-rod is affixed to a head 3, as shown, of disk-like form, and to one side of this head 3 is secured a clamping-disk 4. The disk 4 diverges slightly from the head 3, so as to leave a diverging annular channel at 5 for an important purpose, which will presently appear. The head 3 is provided with a knife edge or blade 6 at some peripheral point, preferably near to the base of the cleaning-rod 2. The clamping-disk 4 may be of any suitable material, but would usually be constructed of semi-elastic rubber, leather, or similar material. If constructed of metal, its inner surface should be serrated or otherwise roughened to increase its ability to clamp and frictionally hold the string. At its free end the cleaning-rod 2 has an upset or slightly enlarged head 7, that is rounded and is formed with a U-shaped groove 8, adapted to receive an ordinary piece of twine or string. The numeral 9 indicates

a piece of ordinary wrapping string or twine, preferably of soft texture.

The manner of using the improved device is as follows: One end of the string or twine 9 is drawn into the space 5 between the head 3 and clamping-disk 4 and is thereby secured. The string is then drawn into the groove 8 in the head 7 of the rod 2 and is then brought back to the head 3 and given a partial turn and drawn again into the space 5 between said head and clamping-disk 4. The string may then be cut by drawing it laterally over the blade 6. The device is then ready for use. The head 7 of the stem 2 being inserted into the outer extremity of the passage in the pipe-stem, the cleaning-rod 2, together with the string which is applied thereto, may be forced completely through the pipe-stem and into the bowl, and by running the same backward and forth several times the string is caused to take up the nicotine or other deposits within the pipe-stem.

The cleaning-rod being flexible will adapt itself to the curve of a crooked pipe-stem and when withdrawn will assume its normal position—that is, will straighten out. As is evident, when one piece of string becomes loaded with dirt it may be easily detached and thrown away. Furthermore, since the ends of the string never become soiled in the cleaning of the pipe the dirty string may be removed without soiling the fingers.

The improved pipe-cleaner above described has been put into actual use and has been found extremely efficient for the purposes had in view. It is of very small cost and is durable. Ordinary wrapping-twine is an article which may be always conveniently found and when used in connection with the rod for forcing it through a pipe-stem makes the best possible kind of a pipe-cleaner.

From what has been said it will of course be understood that the device described is capable of modification within the scope of my invention as herein set forth and claimed.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. A pipe-cleaner comprising a cleaning-rod notched at one end to hold the intermediate portion of a string, and provided at its other end with a frictional clamp for frictionally holding the ends of the string, substantially as described.

2. The combination with spring-rod 2, having at one end a head 7, with notch 8, and hav-

ing at its other end the head 3, said head 3 having a cutting-blade 6, and a clamping-disk 4 to secure said head 3, and cooperating therewith to frictionally clamp and hold the ends
5 of the string, substantially as described.

3. In a pipe-cleaner, the rod 2, provided at one end with a notch adapted to receive the intermediate portion of the string, and provided at its other end with a head constructed

to clamp the ends of the string, and provided with a cutting-blade, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRED W. COOLEY.

Witnesses:

R. C. MABEY,

F. D. MERCHANT.