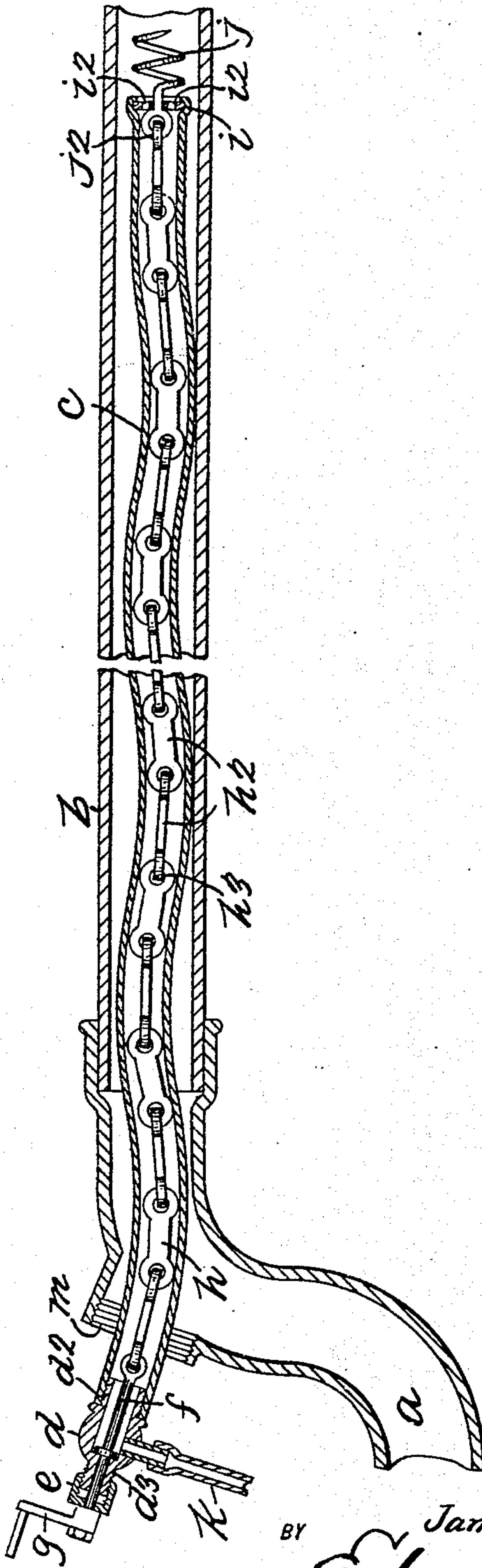


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No. 805,534.

PATENTED NOV. 28, 1905.

J. E. FLITCROFT.
PIPE CLEANING DEVICE.
APPLICATION FILED DEC. 7, 1904.



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES EDWARD FLITCROFT, OF OCEAN GROVE, NEW JERSEY.

PIPE-CLEANING DEVICE.

No. 805,534.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed December 7, 1904. Serial No. 235,806.

To all whom it may concern:

Be it known that I, JAMES EDWARD FLITCROFT, a citizen of the United States, residing at Ocean Grove, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Pipe-Cleaning Devices, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to means for cleaning the discharge pipe or pipes of sinks, traps, and the like; and the object thereof is to provide an improved device of this class by means of which the discharge-pipes of sinks, traps, and the like may be cleaned out when clogged or closed by the collection therein of any kind or class of substances; and with this and other objects in view the invention consists in a device of the class specified constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters, said drawing being a sectional longitudinal view of my improvement and showing the method of its operation.

In the drawing forming part of this specification I have shown at *a* a part of an ordinary trap such as is employed in connection with the discharge-pipes of basins of various kinds and classes and with which is connected a part of the discharge-pipe *b*, and in the practice of my invention I provide a device for the cleaning out of the pipe *b* when clogged or closed by the collection of any kind or class of substances therein, which is of the following construction: My improved pipe-cleaning device comprises a flexible tube *c*, which may be formed in any desired manner and of any preferred material and which also may be strengthened by means of a wire covering or lining in the manner of ordinary flexible hose or tubes used in connection with water apparatus of various kinds or classes and in connection with fire-extinguishing apparatus. The tube *c* must be of less diameter than the pipe *b*, and connected with one end thereof is a casing *d*, which forms a handle for the operation of the device, said casing being provided at one end with an extension *d*², with which the tube *c* is connected, and at the other end with an extension *d*³, having a stuffing-box *e*, and passing through the casing *d* and

through the stuffing-box *e* is a shaft *f*, provided at its outer end with a crank *g* and the inner end of which is connected with a chain *h*, which passes entirely through the tube *c* and the end of which opposite the casing *d* is closed by a plate *i*, having perforations or holes *i*², through which water may freely pass, and connected with the end of the chain *h* opposite the crank *g* is a spiral, screw, or stirring device *j*, which in the form of construction shown is similar to a corkscrew and provided with a shank which passes centrally through the plate *i* and is free to turn therein and with the inner end of which the chain *h* is connected, as shown at *j*².

The chain *h* in the form of construction shown is composed of oblong links *h*², having eyes *h*³ at their ends, and by turning the crank *g* the chain *h* throughout the length of the tube *c* will be correspondingly turned, and the screw device *j* will also be similarly turned, and in this way any substance collected in the pipe *d* may be removed. I also preferably connect with the casing *d* a flexible tube *k*, which may be connected with any suitable source of water-supply whereby water may be supplied to the tube *c* under pressure, and this water in the operation of the device flows through the tube *c* and is discharged through the perforations or holes *i* and facilitates the operation of the screw device *j* in breaking up and removing any substances which clog the pipe *b*.

Most of the traps used in connection with sinks or water-basins of various kinds and classes as now constructed are provided in the elbow thereof with which the discharge-pipe is connected with an opening *m*, closed by a screw-threaded plug, and in the operation of my device all that is necessary is to remove said plug and insert the tube *c*. It will also be apparent that my improved pipe-cleaning device may be used in connection with the discharge-pipes of kitchen-sinks, basement-sinks, and other devices of this class whereby connection is made with a sewer, and my said pipe-cleaning device may be used in connection with water-pipes of any kind or class used either for the supply or discharge of water into or from a building or in connection with any of the water-pipes of a building, and it will also be apparent that the tube *c* may be made of any desired length.

My invention is not limited to any particular construction of the chain *h* necessary in this connection but

flexible device which may be turned within the tube *c* from one end thereof, said device being of slightly less dimensions in transverse section at its greatest diameter than the interior diameter of the tube *c* and constituting a flexible shaft.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the class described, comprising a flexible tube provided at one end with a hollow handle member and at the opposite end with a closure device having perforations or openings, a flexible shaft extending longitudinally in said tube, and provided at its inner end with a stirrer which passes through said closure device and a turning device at the outer end of the handle member and passing thereinto and connected with said flexible shaft, substantially as shown and described.

2. A device of the class described, comprising

ing a flexible tube provided at one end with a casing adapted to serve as a handle and at the opposite end with a closure-plate having perforations or openings, a flexible device extending through said tube and connected at one end with a crank-shaft which passes through said casing and at the opposite end with a stirrer having a shank which passes through the closure-plate, said casing being also provided with a water-supply tube in communication with said flexible tube, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 6th day of December, 1904.

JAMES EDWARD FLITCROFT.

Witnesses:

F. A. STEWART,
C. J. KLEIN.