

W. H. CLOAK.
EXTENSION HOPPER AND SOIL PIPE CLEANER.
APPLICATION FILED MAY 21, 1908.

941,558.

Patented Nov. 30, 1909.

Fig. 1.

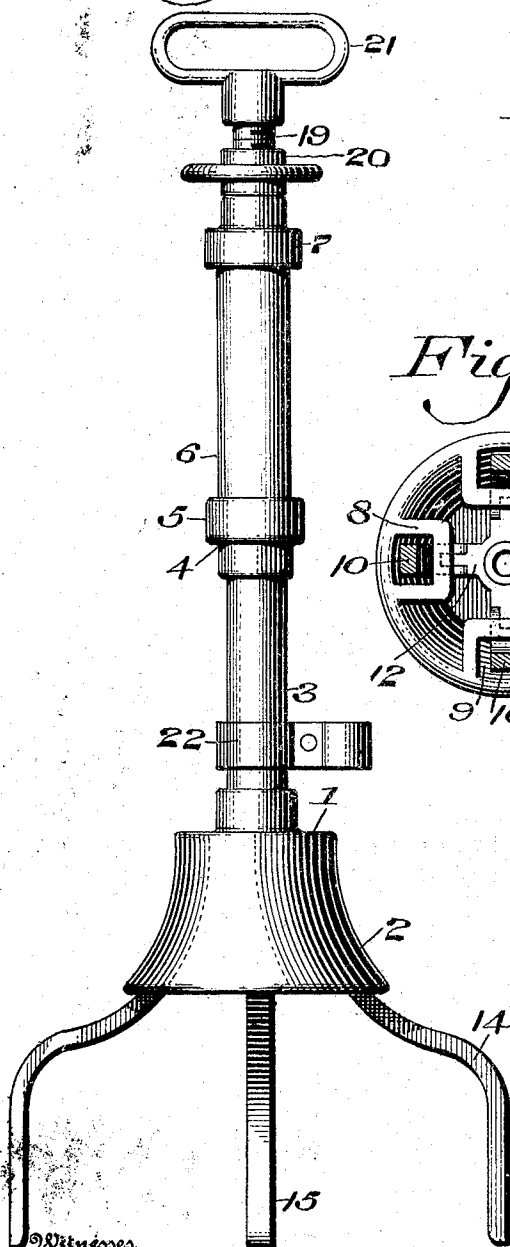


Fig. 2.

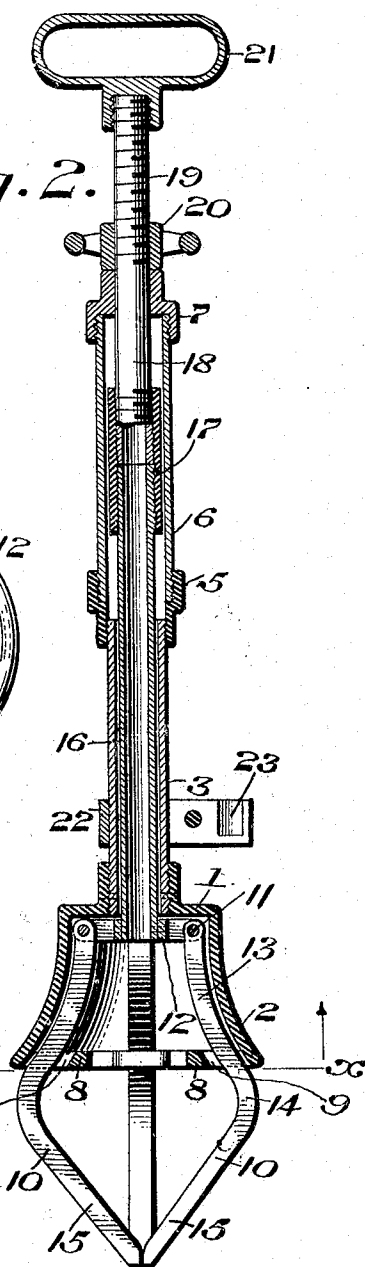
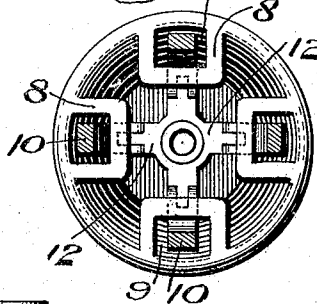


Fig. 3.



Witnesses

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EXTENSION-HOPPER AND SOIL-PIPE CLEANER.

941,558.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed May 21, 1908. Serial No. 434,108.

To all whom it may concern:

Be it known that I, WILLIAM H. CLOAK, a citizen of the United States, residing at Philadelphia, county of Philadelphia, State of Pennsylvania, have invented a new and useful Extension-Hopper and Soil-Pipe Cleaner, of which the following is a specification.

My invention relates to a new and useful extension hopper and soil pipe cleaner and consists in providing jaws which are opened and closed after the cleaner is in the pipe which it is desired to clean.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

Figure 1 represents a side elevation of a cleaner embodying my invention, showing the jaws in open position. Fig. 2 represents a vertical sectional view showing the jaws in closed position. Fig. 3 represents a sectional view on line *w-w*, Fig. 2.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, I have shown a construction which I have found operates successfully and it will be understood that various changes may be made and other instrumentalities may be employed which will come within the scope of my invention and I do not therefore desire to be limited in every instance to the exact construction as herein shown and described; but desire to make such changes therein as may be necessary.

1 designates the body or casing, the side walls 2 of which are inclined or bell-shaped and to said body is connected a tube or pipe 3, in the present instance, by means of screw threads.

4 designates a coupling which is in suitable engagement with the upper end of the tube 3, said coupling having the off-set portion 5, with which is connected a pipe or tube 6 which is of larger diameter than the pipe 3 so that the end of the latter forms a stop or abutment, as will be seen in Fig. 2.

7 designates a cap or closure connected with the tube 6. Projecting inwardly at suitable points from the wall 2 of the body 1 are the guides 8 which can be of any desired shape and size and which are provided with suitable openings 9. Seated and movable in said openings are the jaws 10 which are pivoted at 11 to a spider 12 or other suitable support or carrier, the upper portion of said jaws being curved as at 13 to

correspond to the curvature of the wall 2 of the body portion 1 and at a suitable point are bent as at 14 to form the inturned ends 15, which as will be seen from Fig. 2, extend toward each other and when in closed position are preferably in contact. The spider or carrier 12 is in suitable connection with a rod or tube 16 which extends upwardly through the tube 3 and into the tube 6 and has a coupling member 17 connected therewith which serves to connect the same with the threaded tube or rod 18, the latter having the threads 19 upon its upper portion which receives a lock nut 20, a handle 21 being in suitable engagement with the rod or tube 18.

22 designates an adjustable light holder which is secured in any convenient manner to the tube 3 and is provided with a socket 23 for the reception of a candle or any suitable light giving means; since it will be understood that in many instances the cleaner is inserted a considerable distance in a soil pipe and it is often necessary to have light at a point adjacent the head of the cleaner, as will be evident.

It will be understood that by reason of the construction of the parts the cleaner can be extended or made any desired length, which can be accomplished by unscrewing the tube 6 from its connection with the coupling 4 after which the coupling member 17 can be properly rotated to disconnect the threaded tube or rod 16 from the rod or tube 18 and by the insertion of other sections, that is, of another tube similar to 6 and another tube similar to 16, which can be connected by coupling members similar to 17 and 4, the cleaner can be made of any desired length.

The operation of the device will be readily apparent.

The parts being in the position seen in Fig. 2, the cleaner is inserted in an extension hopper or soil pipe and is passed down to the obstruction, at which time by loosening the nut 20 and grasping the tube 6, the rod or tube 18 can be forced downwardly carrying with it the rod or tube 6, which supports the carrier 12 and the same will be lowered in the body portion 1 and by reason of the contact of the jaws 10 with the guides 8 and the wall 2 of the body, the ends of the jaws are forced outwardly into the position seen in Fig. 1 to engage with the article or obstruction which closes the pipe. By a re-

verse operation, that is, elevating the tube 18, the jaws can be again closed or partly closed, causing them to firmly grasp the article, after which the nut 20 can be operated to lock the jaws in the desired position and the cleaner is raised carrying with it the obstructing article.

It will be noticed that the end of the pipe 6 forms a stop with which the coupling abuts to prevent improper fastening of the parts.

It will further be noted that the end portions of the jaws extend substantially vertical when open as seen in Fig. 1, so as to closely engage with the wall of the soil pipe to grasp any obstruction therein.

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

1. In a device of the character described, a body having curved walls, a tube, a rod, a carrier thereon, and within the body, and jaws pivoted to the carrier and having curved upper portions to conform to said curved walls and movably connected with the body, the free ends of said jaws disposed, when distended, in a vertical position.

2. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws independently pivotally connected with said carrier, the free ends of said jaws disposed, when distended, in a vertical position, and inclined guides on said body within which said jaws move, the upper portions of said jaws being curved to conform to the curved wall of said body.

3. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws independently pivotally connected with said carrier, the free ends of said jaws disposed, when distended, in a vertical position, inclined guides on said body within which said jaws move, the upper portions of said jaws being curved to conform to the curved wall of said body, and means for operating said jaws.

4. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws independently pivotally connected with said carrier and each having a curved portion to correspond to the curvature of the walls, the free ends of said jaws disposed, when distended, in a vertical position, inclined guides on said body within which said jaws move, and means for operating said carrier and jaws.

5. In a device of the character described, a body having a curved wall, a carrier movably supported within said body, jaws pivotally connected with said carrier and each having a curved portion to correspond to the curvature of the walls and being pro-

vided with free ends, which, when distended, are disposed in a vertical position, guides on said body within which said jaws move, and means for operating said carrier and jaws.

6. In a device of the character described, a body having a curved wall, a tube connected therewith, a carrier within said body, a tube connected therewith passing through the tube of said body, a handle on said inner tube, jaws pivotally connected with said carrier each having a curved portion to correspond to the curvature of the walls, and having free ends disposed, when distended, in a vertical position, and guides carried by said body and within which the jaws move.

7. In a device of the character described, a body having curved walls, an inner tube with an extension coupling, a carrier thereon, and within the body, and jaws connected to the carrier and movably connected to the body, the upper portions of said jaws being curved to conform to the curved wall of said body and the free end of said jaw disposed, when distended, in a vertical position, a rod, a handle, and an extension head.

8. In a device of the character described, a body having curved walls and inclined guides, an inner tube with an extension coupling, a carrier thereon and within the body, the jaws independently connected to the carrier, and movably connected to the body, the upper portions of said jaws being curved to conform to the curved wall of said body and the free end of said jaws disposed, when distended, in a vertical position, and inclined guides on said body for directing the movement of said jaws.

9. In a device of the character described, a body having a curved wall, a carrier connected to a tube with an extension coupling attached thereon, said carrier being movably supported within said body, jaws independently connected with said carrier, the upper portions of said jaws being curved to conform to the curved wall of said body and the free end of said jaws disposed, when distended, in a vertical position, and inclined guides on said body within which said jaws move.

10. In a device of the character described, a body having a curved wall, a carrier connected to an inner tube with extension coupling thereon and passing through a body tube with an extension coupling attached thereon, said carrier being movably supported within said body, jaws independently connected with said carrier, the upper portions of said jaws being curved to conform to the curved wall of said body and the free end of said jaws disposed, when distended, in a vertical position, inclined guides on said body within which said jaws move, and means for operating the said jaws.

11. In a device of the character described,

a body having a curved wall, a carrier movably supported within said body, jaws independently connected with said carrier and each having a curved portion to correspond to the curvature of the walls, the free end of said jaws disposed, when distended, in a vertical position, inclined guides on said body within which said jaws move, the carrier connected to a tube connected at the upper end with an extension coupling to a rod with a handle for the movement of said jaws.

12. In a device of the character described, a body having a curved wall, a tube connected therewith having an extension coupling on the upper end to connect said tube to the exterior head, a carrier movably supported within said body, jaws independently connected with said carrier and each having a curved portion to correspond to the curvature of the walls, and being provided with free ends, which, when distended, are disposed in a vertical position, guides on said body within which said jaws move, the carrier connected to a tube connected at the upper end with an extension coupling to a rod with handle for the movement of said jaws.

13. In a device of the character described, a body having a curved wall, a tube connected therewith having an extension coupling on the upper end to connect said tube to the extension head, a carrier, a tube connected therewith passing through the tube of said body with extension coupling on the upper end to provide for extension of the device, and for the movement of jaws independently connected with said carrier, and having free ends, disposed, when distended, in a vertical position, and guides carried by said body within which the jaws move, the

upper portions of said jaws being curved to conform to the curved wall of said body.

14. In a device of the character described, a body having a curved wall, a tube connected therewith and assembled to the extension head by the extension coupling at the top end of said tube, a carrier, a tube connected therewith passing up through the tube of said body with an extension coupling on the upper end and a rod with a handle attached passing downwardly through said extension head to connect with said carrier tube, coupling jaws independently connected with said carrier and having free ends, disposed, when distended, in a vertical position, and guides carried by said body within which the jaws are operated by the above-named means, the upper portions of said jaws being curved to conform to the curved wall of said body.

15. In a device of the character described, the combination of an extension head cooperating with the body tube by an extension coupling for increasing the length of the device, a carrier connected to a tube passing up through the body tube and cooperating with a rod extending down through the extension head by an extension coupling for increasing the length of the device, a handle on said rod, the jaws independently connected within said body and supported by the same, the upper portions of said jaws being curved to conform to the curved guides on the body, and an adjustable bracket adapted to be moved to any position on the body tube.

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mark

Witnesses:

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