

No. 872,109.

PATENTED NOV. 26, 1907.

T. CANTWELL.  
SEWER PIPE CLEANER.  
APPLICATION FILED OCT. 12, 1906.

3 SHEETS—SHEET 1.

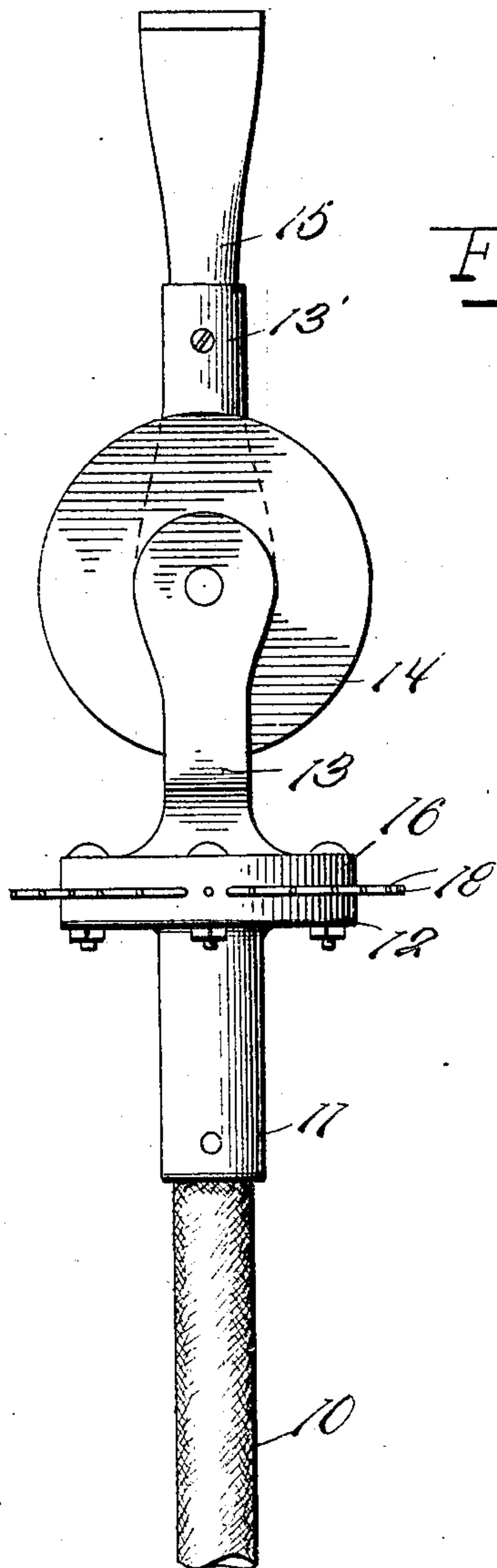


Fig. 1.

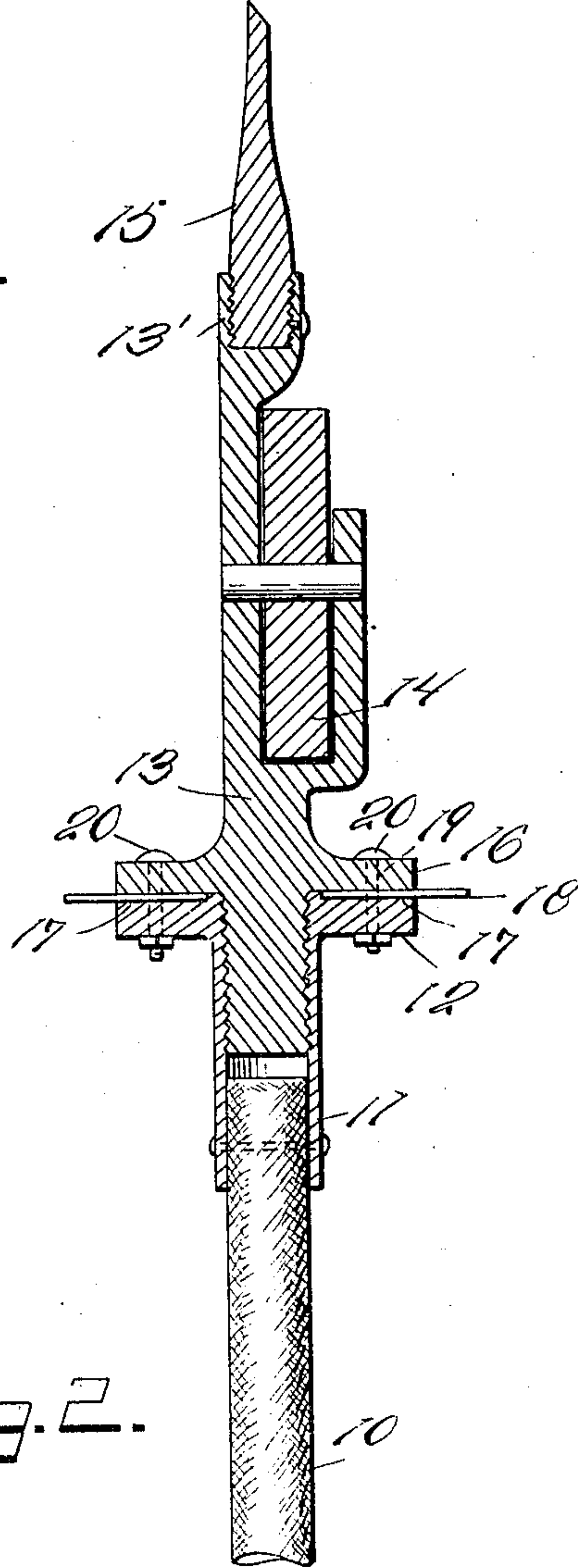


Fig. 2.

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3 SHEETS—SHEET 2.

Fig. 3.

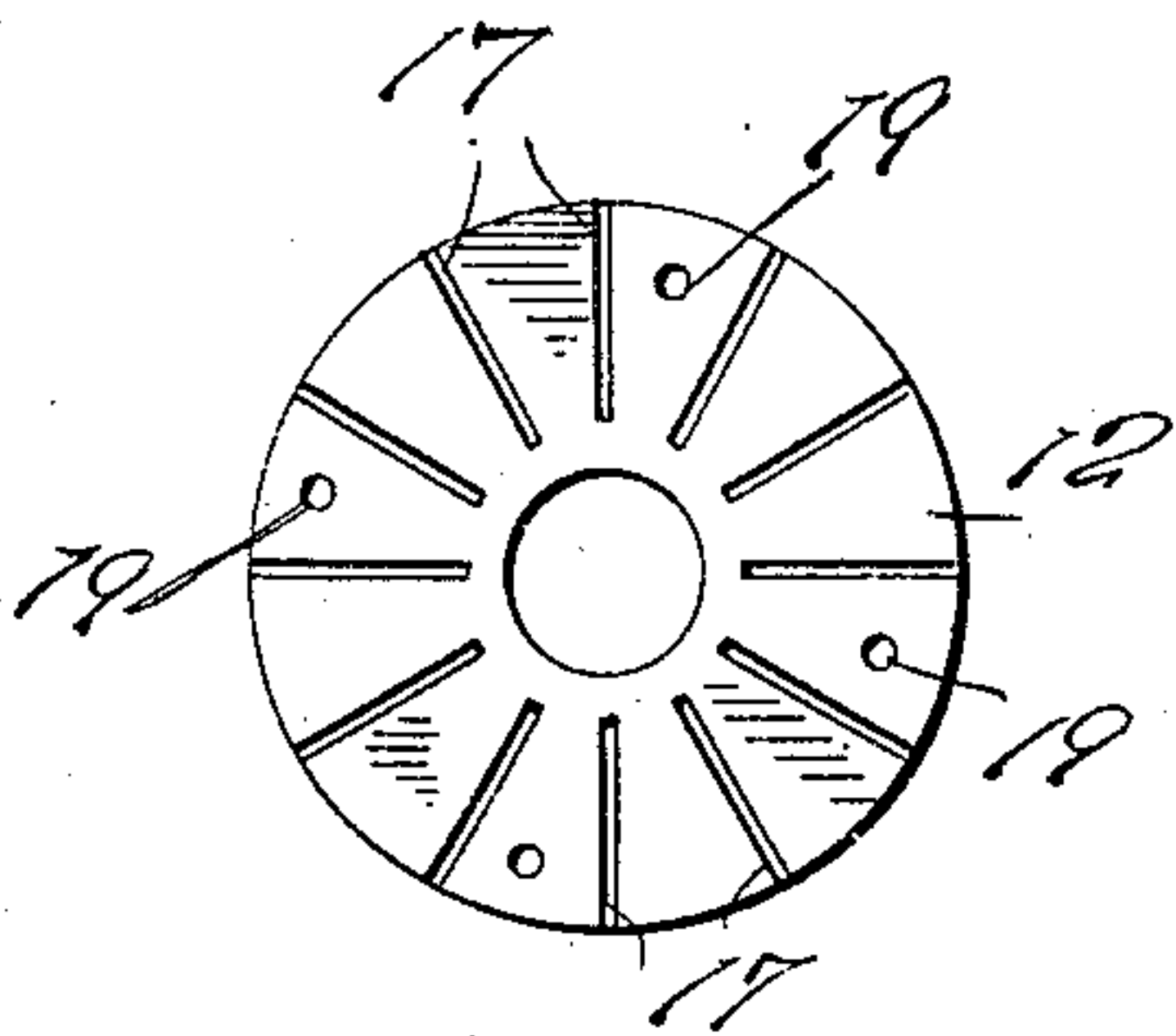


Fig. 4.

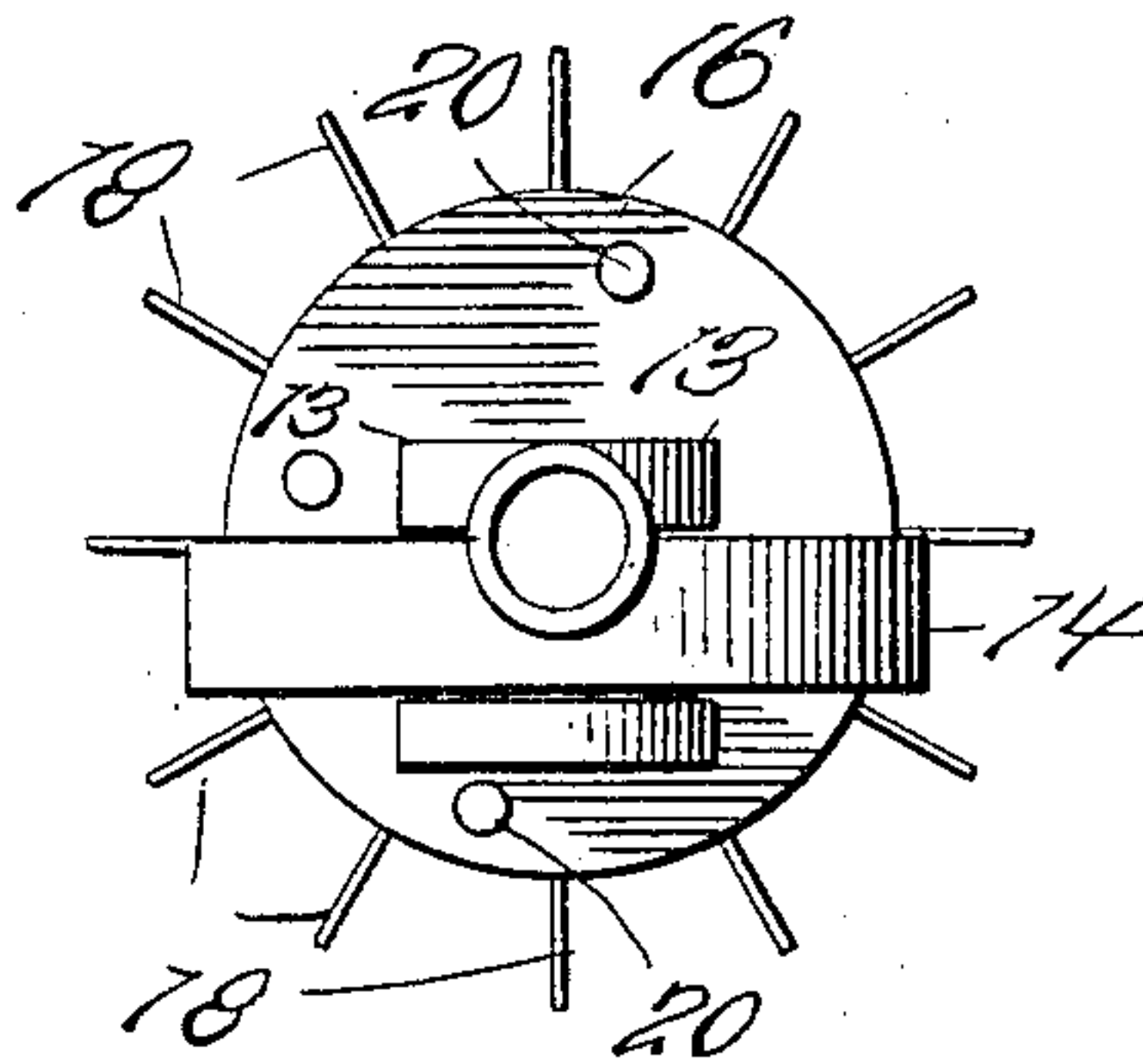
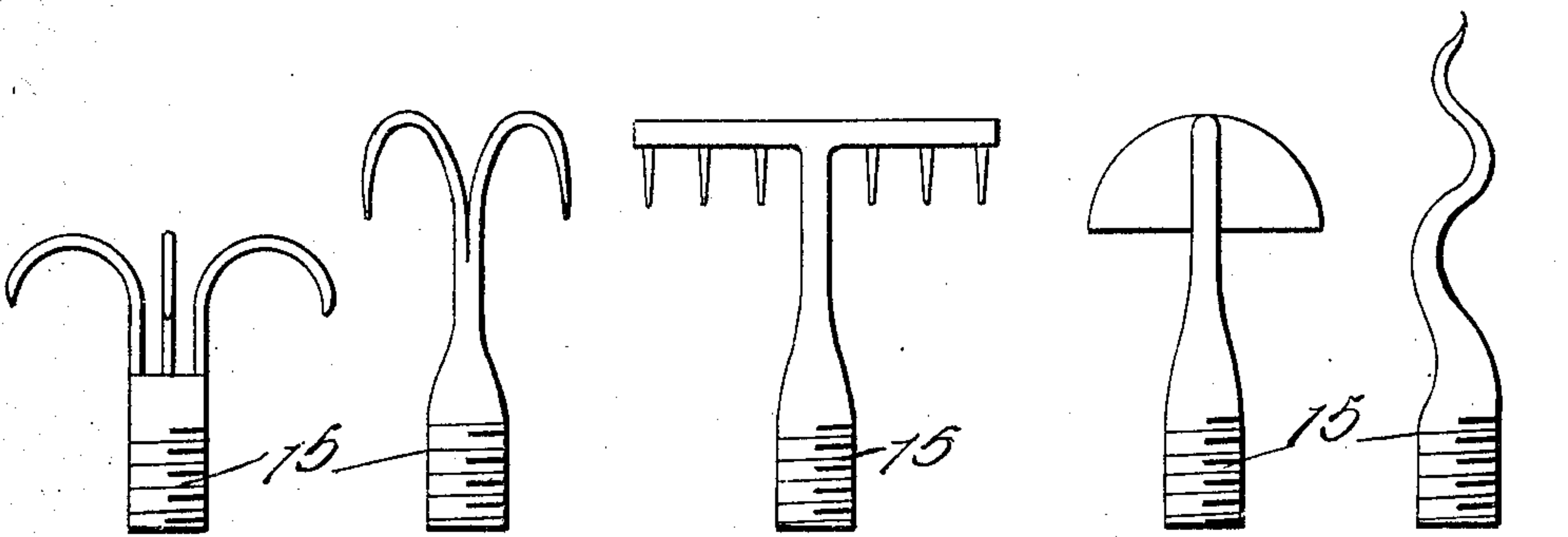


Fig. 5.



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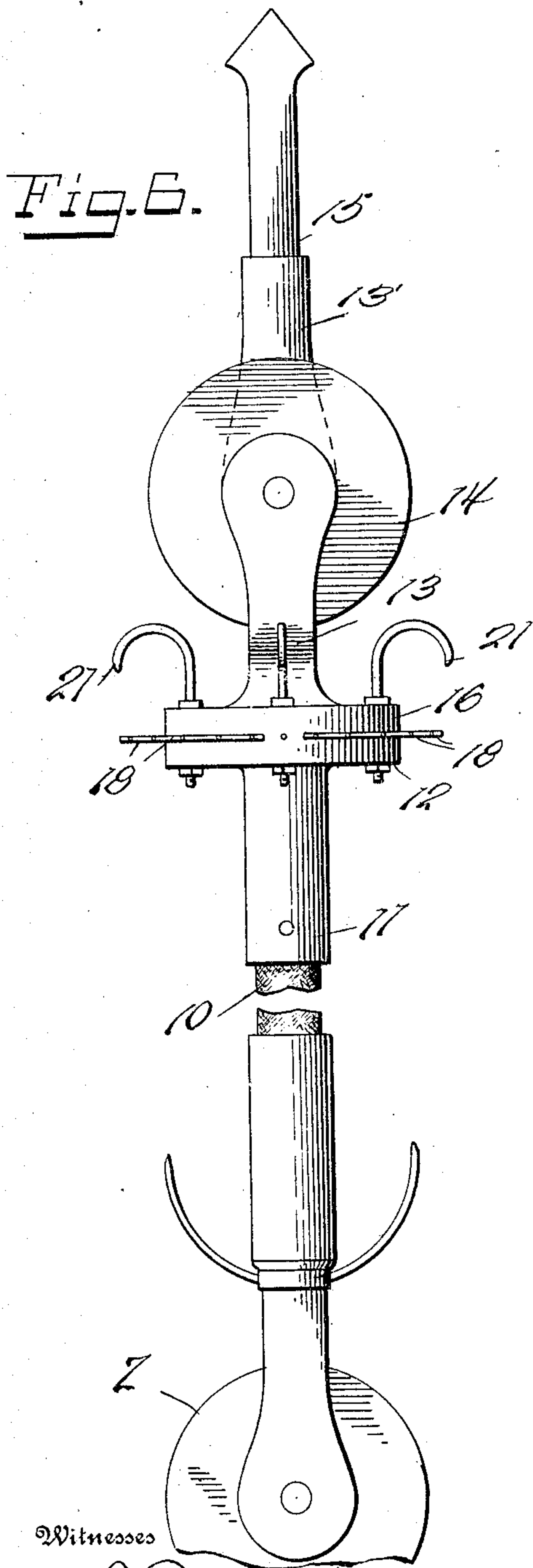
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3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

THOMAS CANTWELL, OF ST. LOUIS, MISSOURI.

## SEWER-PIPE CLEANER.

No. 872,109.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed October 12, 1906. Serial No. 338,667.

*To all whom it may concern:*

Be it known that I, THOMAS CANTWELL, a citizen of the United States, residing at St. Louis, in the county of St. Louis City, State of Missouri, have invented certain new and useful Improvements in Sewer-Pipe 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.

This invention has relation to means employing a flexible handle for cleaning sewer and other pipes and flues; and it has for its object the provision of improvements that are adapted to be connected with a cable as a handle for insertion through sewer-pipes for dislodging and removing obstructions in the pipes and scraping and otherwise cleaning the same.

The invention is clearly portrayed in the annexed drawing forming a part of this specification, in view of which the said invention will first be described with respect to its construction and mode of operation and then be pointed out in the subjoined claims.

Of the said drawings:—Figure 1 is a side view of one form of my improved pipe cleaner device. Fig. 2 is a longitudinal sectional view of the head. Fig. 3 is a transverse sectional view of the flange. Fig. 4 is a separate view of tip of the head for initiating the removal of obstructions in a pipe. Fig. 5 shows various forms of tools or devices that may be attached to the head in advance of the wheel, or as cleaners or scrapers attached to the flange. Fig. 6 is a side view of the invention showing it equipped in part with a different form of means for cleaning a pipe from that shown in Fig. 1.

Similar numerals of reference designate similar parts or features, as the case may be, wherever they occur.

In the drawings 10 designates the flexible handle, which is composed of a wire cable, and may be as large and long as desired. At the inner end the wires are connected and secured together by solder or other suitable means, and a sleeve 11, having a round flanged end 12, is secured on the end of the handle by solder or other efficient means.

13 designates an extension provided with suitable bearings for a wheel 14, by preference a little greater in diameter than the flange 12, said extension 13 having a socketed projection 13' forward of the wheel-bear-

ing, for the reception of a tool 15 to be presently further explained. The extension 13 at its rear end is provided with an annular flange 16, similar to the flange 12, and the said flanges 12 and 16 are provided on their meeting faces with radial grooves 17 for the reception of lengths of wires 18 or other means that may be clamped between the flanges and form a brush or scraping means for cleaning the inner sides of a pipe when forced therein by the handle 10. The margins of the flanges have holes 19, formed there-through for the reception of bolts 20 for clamping the flanges on the wires 18 or other suitable means.

Instead of clamping the flanges together by simple bolts, scraping devices 21 having the ends of their shanks constructed in the form of bolts to receive nuts on their screw-threaded ends may be secured in the holes 19 and clamp a brush or other scraping or cleaning means between the flanges, or be employed without such means.

The socket in the projection 13' forward of the wheel 14 is interiorly screw-threaded for the reception of the screw-threaded shank of a tool 15 that may have the form of a spear, chisel, hook, auger, hoe or rake, or be otherwise constructed as circumstances may suggest. (See Fig. 5.)

In use the head will have applied to it such means as may be best adapted for operation in the pipe to be cleaned and said head will be forced through the pipe by the flexible handle, which will permit it to pass crooks and turns in the pipe, while the wheel will carry the end over any unevenness in the pipe until rubbish or obstruction is met, when the rubbish cleaning tool 15 coming in contact therewith will force its way through or act preliminary thereon, until the said obstruction is worked away sufficiently to have the scrapers or brush connected with the flanges operate therein to completely clean the pipe.

The provision on the extension of the head for the attachment of a suitable tool and for supporting a wheel are important features of the invention.

What is claimed is—

1. The combination, with the flexible handle, of a head comprising a sleeve secured on the inner end of a handle and provided with an annular flange, a detachable extension provided at its base with a flange coextensive with and of a form corresponding to the first-mentioned flange, wires radially arranged be-



tween said flanges and means for clamping the flanges together on the wires, the said extension being further provided with a socket in its forward end for the reception of the 5 shank of a tool and having a wheel-bearing to the rear of said socket, and a wheel larger in diameter than the flanges supported on said bearings.

2. The combination, with the flexible handle, of a head comprising a sleeve secured on the inner end of the handle and provided with an annular flange, a detachable extension provided at its base with a flange coextensive with and of a form corresponding to 15 the first-mentioned flange, wires radially arranged between said flanges, scrapers having

shanks constructed as screw-threaded bolts extended through the apertures of the flanges, and nuts turned on said bolts for clamping the flanges together on the wires, the said extension being further provided with a socket 20 in its forward end for the reception of the shank of a tool and having a wheel bearing to the rear of said socket, and a wheel larger in diameter than the flanges supported on said 25 bearings.

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

THOMAS CANTWELL.

Witnesses:

JOHN A. NOLAN,  
A. E. NEUMAN.