

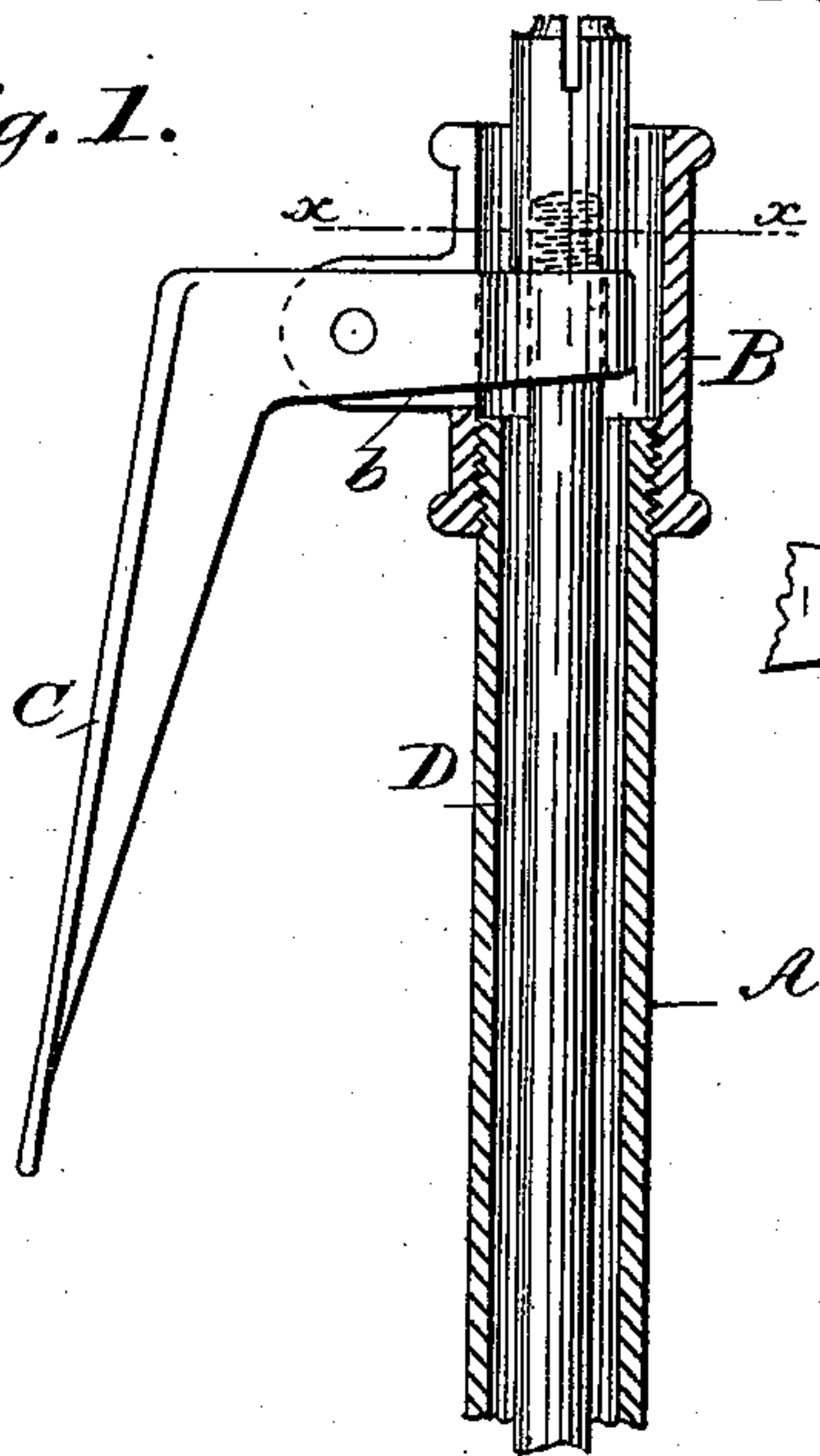
(No Model.)

W. THOMAS.  
PLUMBER'S GRAPPLING TOOL.

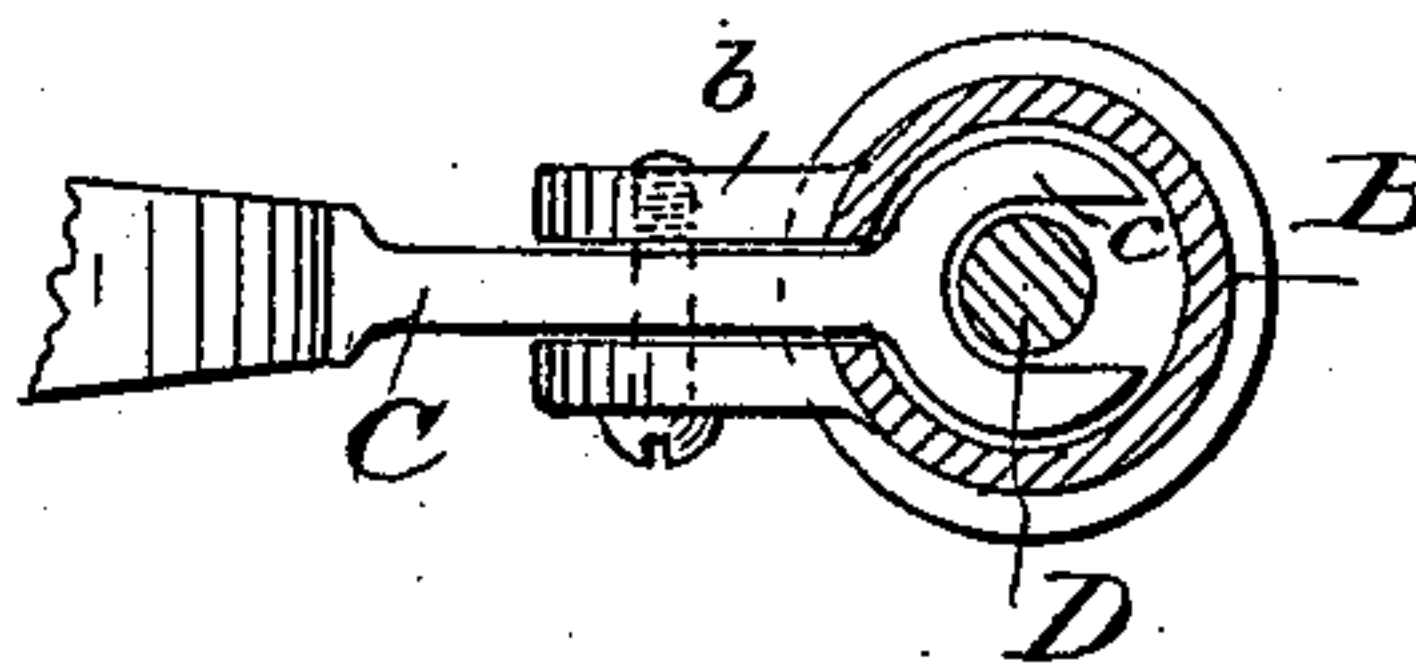
No. 528,827.

Patented Nov. 6, 1894.

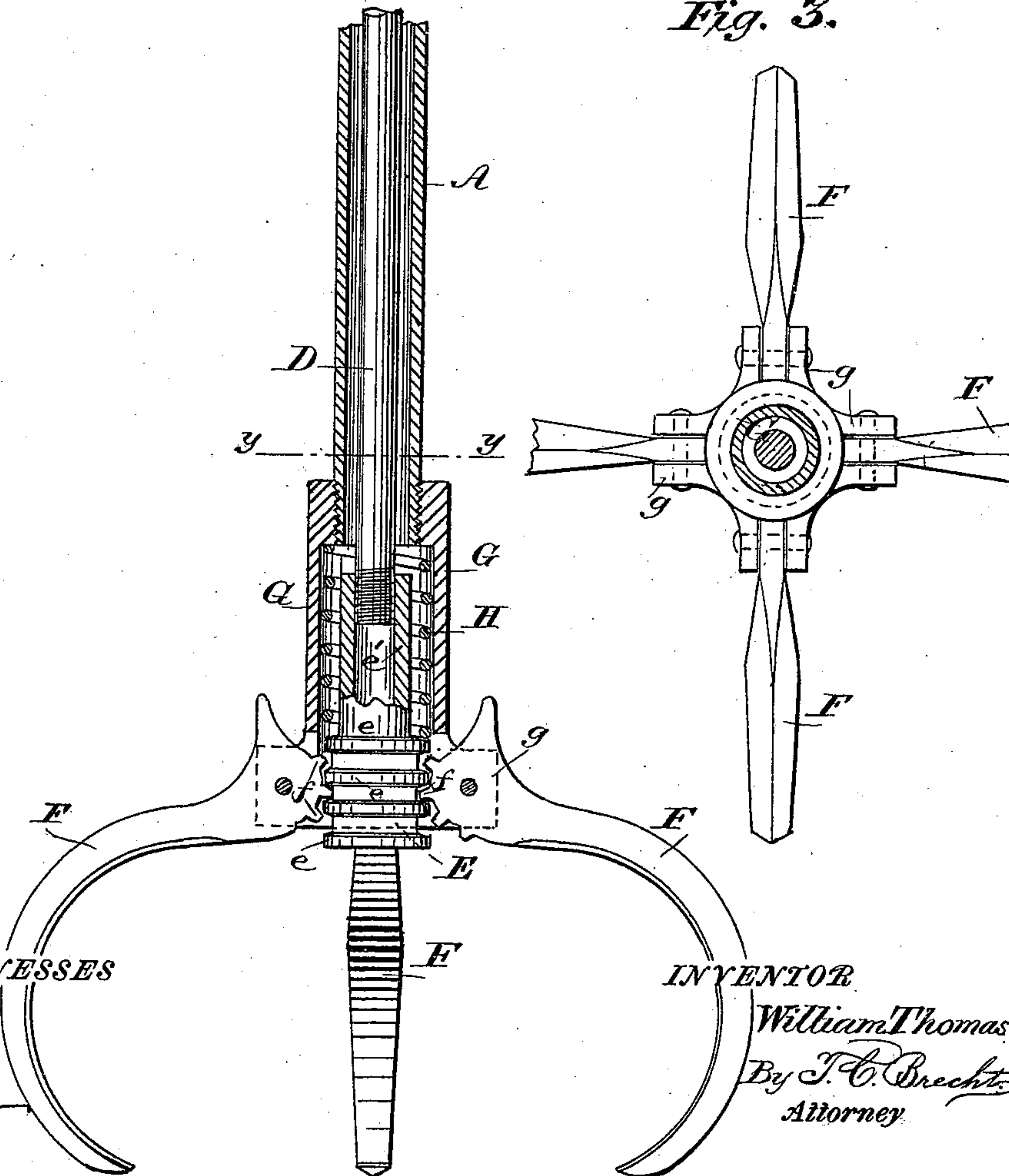
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM THOMAS, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF  
ONE-HALF TO MATTHEW RUPPERT, OF SAME PLACE.

## PLUMBER'S GRAPPLING-TOOL.

SPECIFICATION forming part of Letters Patent No. 528,827, dated November 6, 1894.

Application filed February 1, 1894. Serial No. 498,731. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM THOMAS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Plumbers' Grappling-Tools; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in apparatus or devices for extracting or recovering articles from sewers, water-closets, &c.; and the object of the invention is to extract or recover any articles, which have been dropped, or have fallen by accident, carelessness or otherwise, into any deep places, or which cannot be easily reached, such as water-closets, sewers, &c.; also to accomplish this in an easy and expeditious manner at a very small expense, as it is a well-known fact that this, at present is a very expensive and laborious operation; furthermore to facilitate this operation without soiling the hands or clothes by a very simple and easily operated device, which is not liable to get out of order, and can be produced at a very small expense, so as to be within the reach of all.

My invention to this end in view, consists of certain details of construction, and combination of parts, as will be more fully described hereinafter, and specifically pointed out in the claim, reference being had to the accompanying drawings, and the letters of reference marked thereon.

Like letters indicate similar parts in the different figures of the drawings, in which—

Figure 1 represents a vertical section of the apparatus, partly in elevation. Fig. 2 is a cross-section on line *x, x*, of Fig. 1. Fig. 3 is a cross section on line *y, y*, of Fig. 1, showing the arms or grapplers extended.

In the accompanying drawings, A represents a tube or pipe of any suitable size, length, and material, provided with a screw-thread at its upper and lower ends, to the upper of which the head B is screwed. This

head is provided with the lugs *b*, to which a lever C is pivoted. Said lever is provided at its inner end with a forked part *c* which passes around the rod D, having a suitable shoulder, and serves to operate the rod and arms F as required. The lower end of the tube A is screwed into the lower head G provided with the bisected lugs *g*, between which the curved arms F are pivoted. These arms F, of which there may be four, more or less, are curved, as best seen in Fig. 1, and when the rod D is depressed or raised, they are opened or closed to grasp the article, or release it. Said lugs *g* are preferably cast on the lower head G, and the arms pass through suitable openings or slots in the lower edge of said head. The outer ends of said arms may be flattened to a thin edge, so that very small articles can be readily grasped by them, when they are manipulated. The rod D passes through the tube A, and is provided at its lower end with a serrated piece E, which forms the annular teeth *e*, with which the teeth *f* on the pivoted arms F engage. The lower head G is recessed for the reception of a coiled spring H, which fits around the reduced part *e'* of the piece E, and by said spring the pivoted arms F are held in an extended position, by the spring's tension against the upper annular tooth *e* and the upper edge of the recess in the piece G, until the device is required for use and the arms are acted on by the rod D by means of the pivoted handle C.

The many advantages possessed by my apparatus will be readily appreciated by those skilled in the art, as well as others, and it is especially adapted for restaurant keepers, hotels, theaters, as well as for use in private families, as it is a well-known fact, that when any articles, whether valuable or not, but also having a tendency to stop or clog up the sewers, &c., it is always a very expensive and troublesome operation, to have such articles removed, or to attempt to recover them.

This apparatus being of very simple construction, is not liable to get out of order, and is always ready for use.

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

The combination with the tube A, of the

upper head B upon one end of the tube, the bell-crank lever C pivoted to said head and engaging the upper end of the rod D, the rod D extending the length of the tube, the serrated piece E upon the lower end of the rod adapted to engage the teeth upon the arms, the lower head G upon the tube, the arms F pivoted to the lower head, and the spring H inclosed in the lower head and adapted to hold the arms open, as shown and described. 10  
In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM THOMAS.

Witnesses:

MATHEW RUPPERT,

LOUIS BEYER.