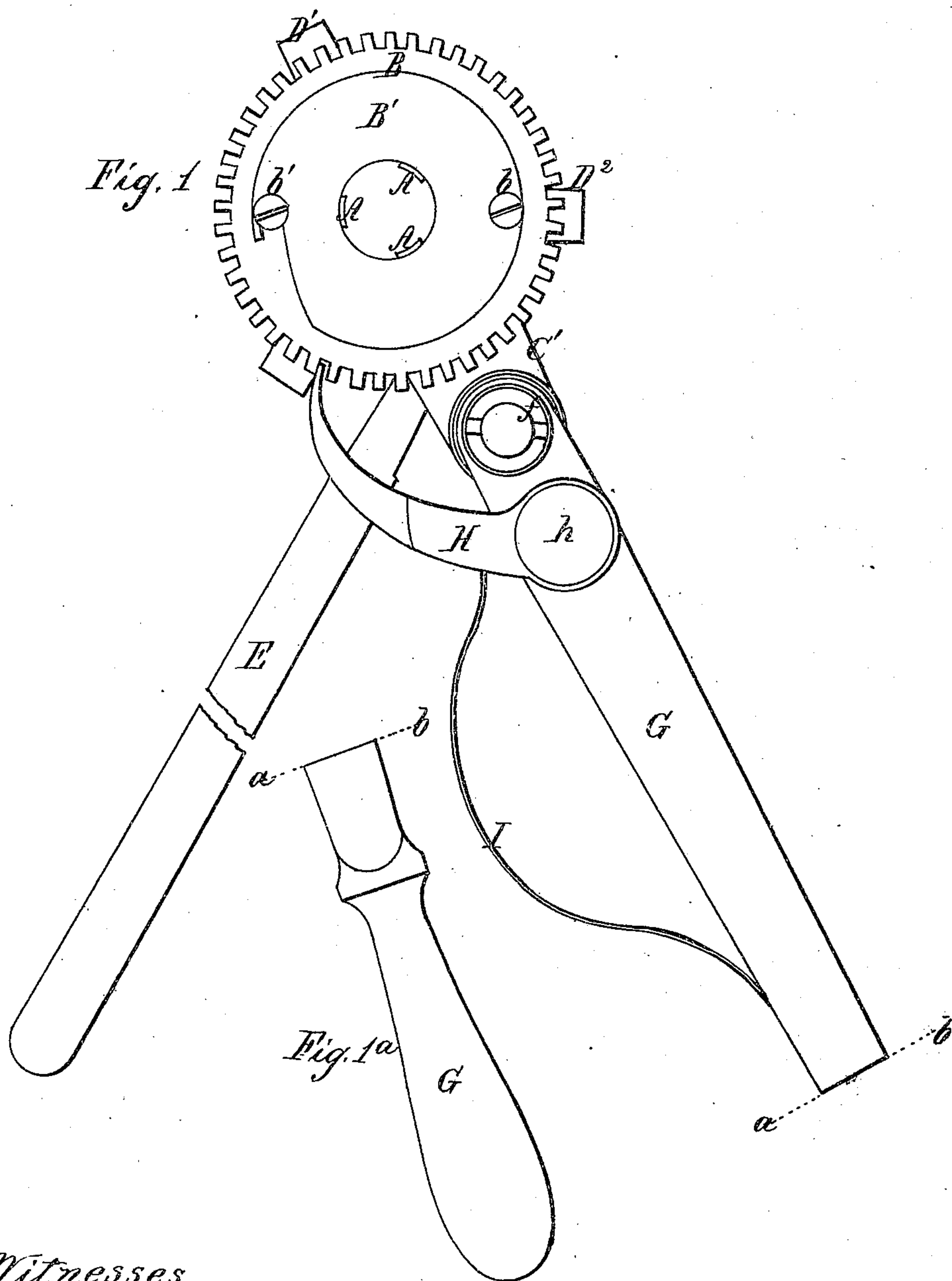


D. SAUNDERS.
THREADING TUBES.

No. 76,823.

Patented Apr. 14, 1868.



Witnesses

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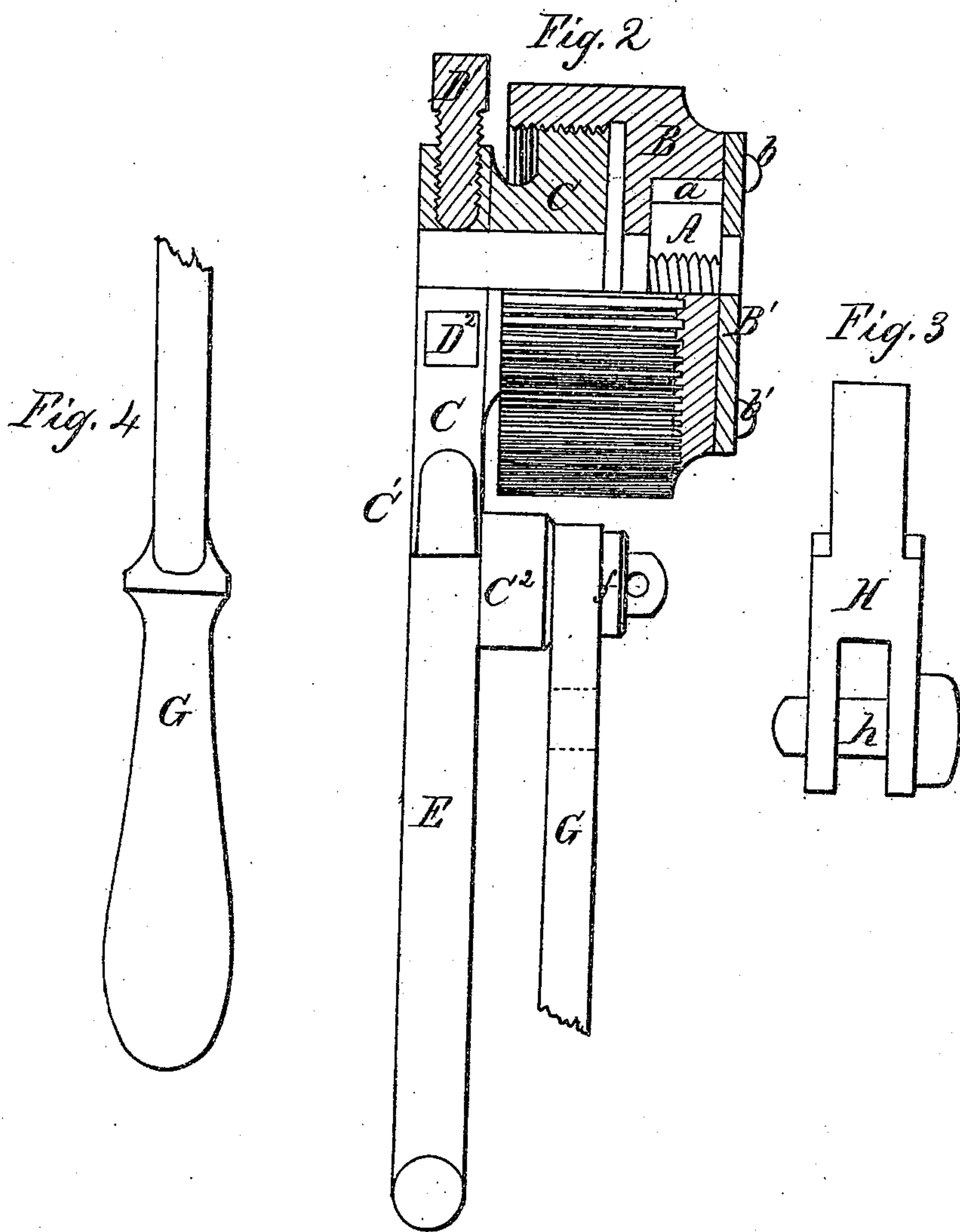
Inventor

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United States Patent Office.

DAVID SAUNDERS, OF BROOKLYN, ASSIGNOR TO JOSEPH NASON & CO.,
OF NEW YORK CITY, N. Y.

Letters Patent No. 76,823, dated April 14, 1868.

IMPROVEMENT IN THREADING TUBES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DAVID SAUNDERS, of Brooklyn, in the county of Kings, and State of New York, have invented certain new and useful Improvements in Means for Producing the Screw-Threads Required on the Ends of Gas-Pipes and analogous round objects; and I do hereby declare that the following is a full and exact description thereof.

I will first describe what I consider the best means of carrying out my invention, and will afterwards designate the point which I believe to be new therein. The accompanying drawings form a part of this specification.

Figure 1 is a face view with the lever G cut off at the line *a b*, to allow its being all shown on a small sheet of paper.

It should be understood that the part represented in Figure 1^a is a continuation of the lever G, represented in fig. 1.

Figure 2 is a side elevation, partly in section.

Figures 3 and 4 are details, detached.

Similar letters of reference indicate like parts in all the figures.

A is the die, which may be produced in the usual or any approved form adapted to cut the thread desired. It is locked in the pinion B by means of the key *a*, and is covered and confined, when in use, by the plate B', which turns on the pivot *b*, and locks under the head of the screw *b'*. C is the leader-piece, which is adapted to be confined in a fixed relation to the pipe to be treated, and is threaded on its exterior, as also the piece B on its interior, with a thread, which corresponds in pitch to that which it is desired to produce on the gas-pipe or other article to be treated, indicated in these figures in red lines, and marked M.

So far as yet described, my apparatus is of an ordinary and well-approved description. The novelty in my invention relates to the means of holding the leader-piece, and operating the other piece, B, and its connectors relatively thereto. My invention affords a more convenient manner of operating than has heretofore been known. It allows the pipe to be threaded without the necessity for a vise, and with a greater purchase or leverage in the operating-device than has been heretofore practicable with devices operating in an analogous manner.

The leader-piece C is fixed directly on the material, M, which I will term the gas-pipe. It is secured firmly by means of the pinching-screws D¹ D², and is provided with an arm, C¹, which is produced with a hole in the side, adapted to receive a bar, E, by which the entire apparatus may be conveniently steadied and supported by the hand. A lever, G, is pivoted to a boss, C², on the extremity of the arm C¹, by means of a stud, *f*, as represented. The device is operated by vibrating the lever G. A pawl, H, is connected to the lever G by the pin *h*, placed near the pivot or fulcrum of the lever G, and adapted, as represented, to catch in the teeth of the piece B, and to move it a little at each vibration. I is a spring, which keeps the pawl H constantly in position to be effective.

By reason of the fact that my lever G turns on the pivot *b*, located outside of the piece B, instead of turning on a centre, which is in the line of the axis of the pipe which is being treated, I am able to obtain a great leverage, and to work with great facility. The force turning the part B around the gas-pipe, may, by my invention, be made fourfold, or any other desired proportion, greater than the force exerted on the lever G, and resisted by the lever E; that is to say, assuming, as must almost necessarily be the case, that the angular strain on the lever G and the handle or supporting-bar E is equal, the force tending to turn the piece B, and consequently to cut the desired thread on the gas-pipe, may be twice, or four times, or any other proportion greater, by making the distance between the points *f* and *h* proportionately short.

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

I claim the threading-tool herein described, constructed and arranged substantially as herein set forth.

D. SAUNDERS.

Witnesses:

W. C. DEX,

C. C. LIVINGS.