

(No Model.)

3 Sheets—Sheet 1.

T. R. BRIEN.
PIPE CUTTER.

No. 511,501.

Patented Dec. 26, 1893.

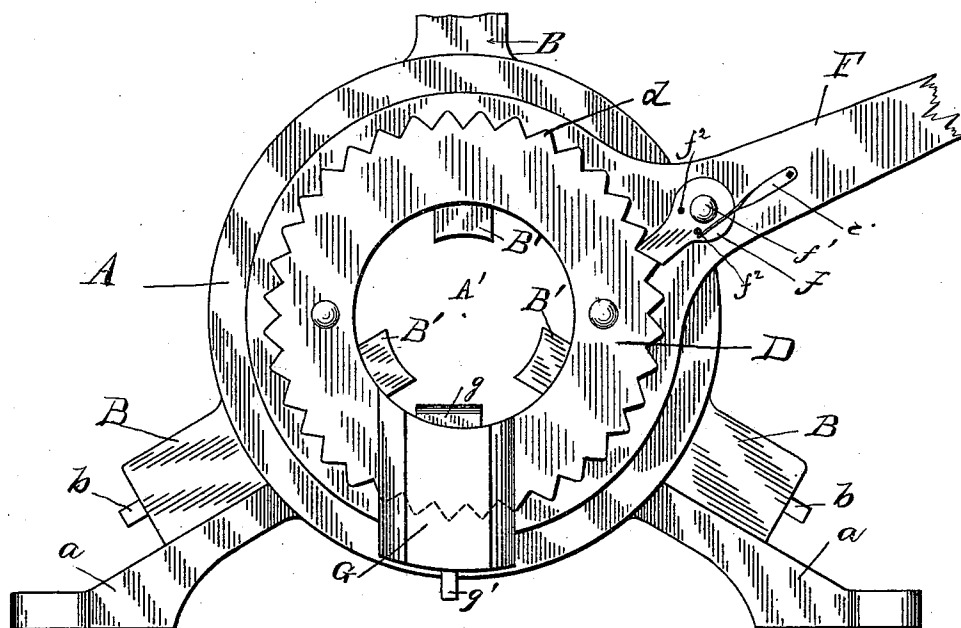


Fig. 1.

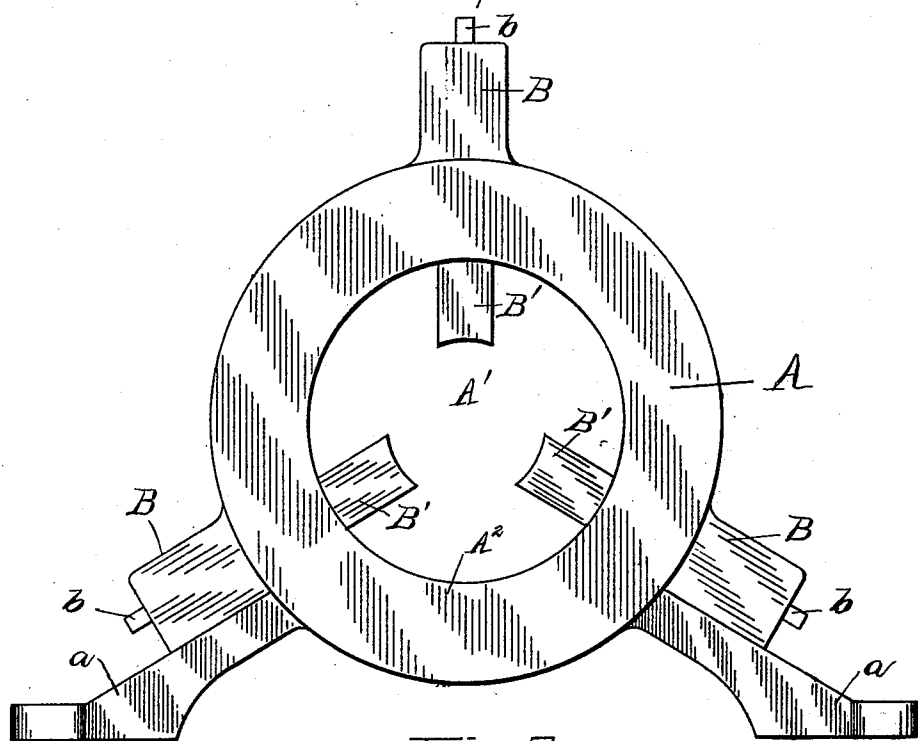


Fig. 2.

WITNESSES:

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BY *Hinsdill Parsons*

ATTORNEY.

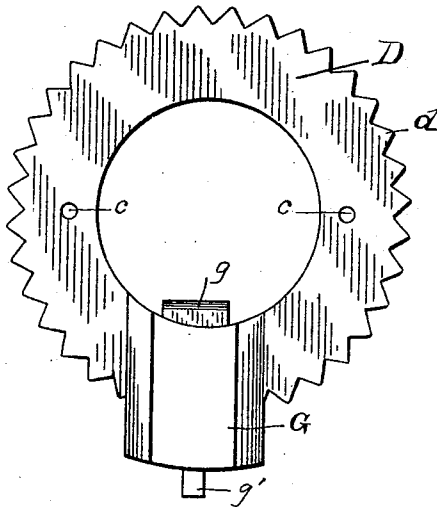
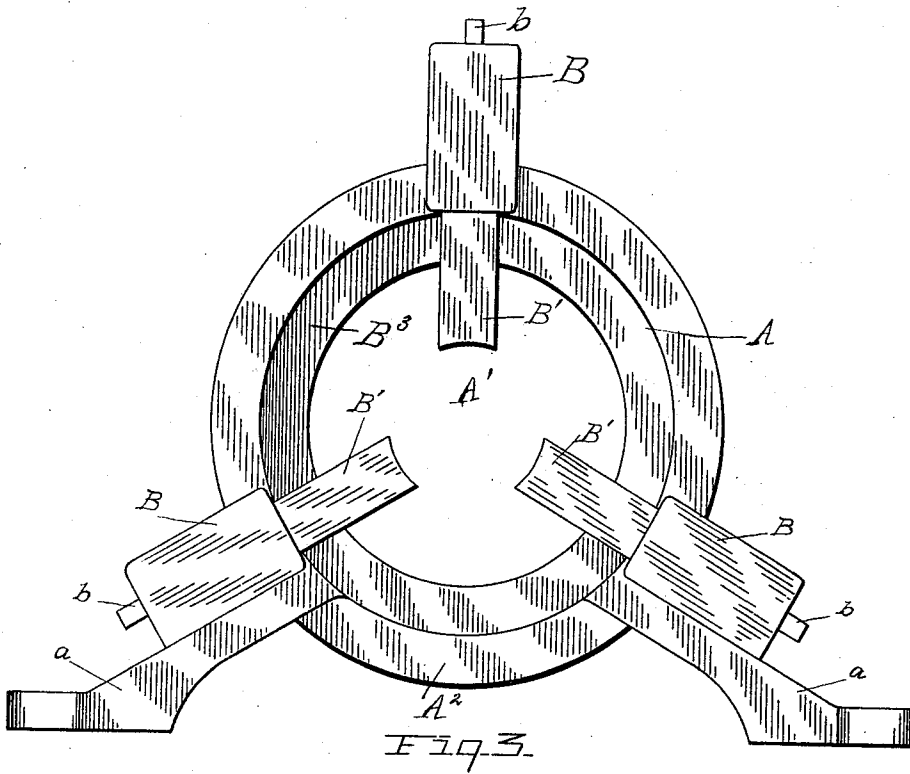
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T. R. BRIEN.
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Fig. 4.

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(No Model.)

3 Sheets—Sheet 3.

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No. 511,501.

Patented Dec. 26, 1893.

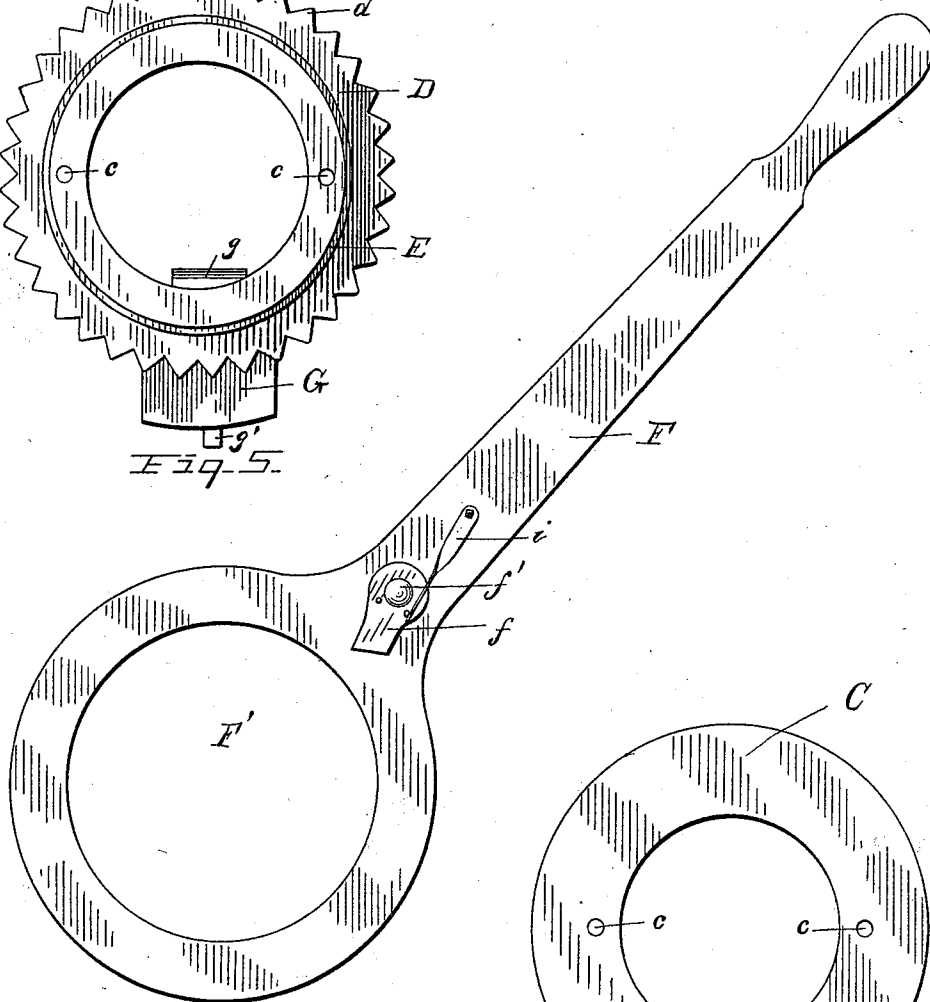
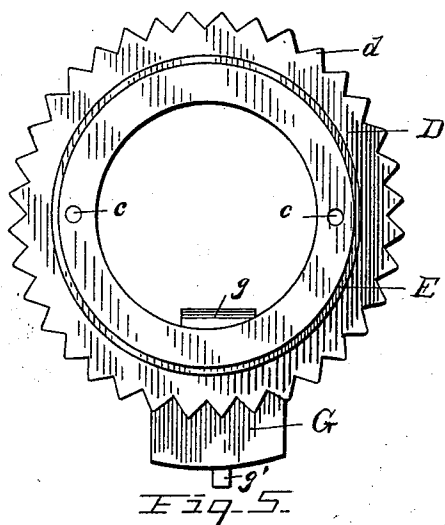


Fig. 6.

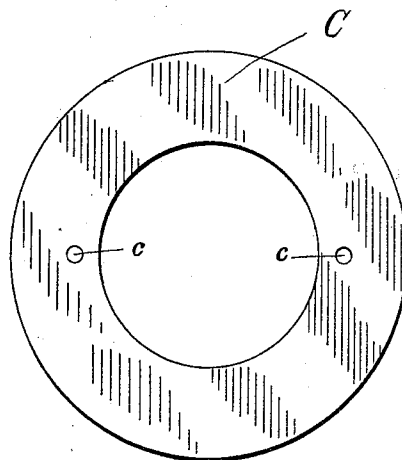


Fig. 7.

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UNITED STATES PATENT OFFICE.

THEODORE R. BRIEN, OF HOOSICK FALLS, ASSIGNOR OF ONE-HALF TO
FRANK L. STEVENS, OF NORTH HOOSICK, NEW YORK.

PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 511,501, dated December 26, 1893.

Application filed February 1, 1892. Serial No. 419,893. (No model.)

To all whom it may concern:

Be it known that I, THEODORE R. BRIEN, a citizen of the United States, residing at Hoosick Falls, county of Rensselaer, and State of New York, have invented a certain new and useful Pipe-Cutter, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to machines for cutting soil pipe and for uses analogous thereto, and consists broadly in a frame adapted to hold the pipe in combination with a tool held by a frame and revoluble through means of a lever by the operator.

The invention will be more fully hereinafter described and pointed out in the claims.

Referring to the drawings in which similar letters of reference indicate like parts:—Figure 1— is a front elevation of a machine embodying my invention. Fig. 2— is a front elevation of the frame and adjustable pipe holders. Fig. 3— is a rear elevation of the same parts as shown in Fig. 2. Fig. 4— is a front elevation of the ratchet wheel to which the cutting tool is attached. Fig. 5— is a rear elevation of the same. Fig. 6— is an elevation of the lever and the detent pivoted thereto. Fig. 7— is an elevation of the retaining collar.

Difficulty has hitherto been experienced in cutting cast and other pipes which is entirely obviated by my invention. It has been customary in the art to cut such pipe with a cold chisel, which is a laborious operation, and does not produce satisfactory results.

A— represents the frame of the machine, which is provided with legs *a a*— suitably perforated to receive fastening bolts, by which the machine may be secured to a plank. The upper part of the frame is made circular in form and has the opening *A'*. To the rear face of the collar *A*², and equidistant from each other are cast or otherwise suitably secured thereto sockets *B*, which receive holding blocks *B'*. The sockets *B* carry at their outer ends adjusting screws *b b b*, the sockets being suitably threaded to receive such screws, and the latter bear upon the blocks *B'*, which are on their inner ends suitably concaved to receive the pipe. It is evident

that by the adjustment of the screws *b b b*, the size of the opening between the inner ends of the holding or bearing blocks may be regulated to correspond with the pipe to be cut, and to center the latter with the opening in frame *A*.

The inner face of the frame *A* is made with the countersink *B*³, in which the confining block *C* has a bearing, and in which bearing the block *C* is held in place by the holding blocks *B'*.

The ratchet disk *D* is formed with the ratchet teeth *d*, and with the collar *E*, which extends through the opening *A'*, and has a bearing against the inner periphery thereof. The lever *F* is formed with the opening *F'* which fits over and has a bearing upon the collar *E*, being confined between the inner face of the ratchet *D*, and the outer face of frame *A*.

The ratchet disk *D* and holding or confining block *C* are provided with adjusting perforations *c c* by which the ratchet disk *D* and confining block *C* are secured together by means of a bolt passing through the registering perforations. The ratchet disk is cast or otherwise provided with a socket *G*, to receive the cutting tool *g* which fitting within the socket is longitudinally adjustable therein by means of a set screw *g'*, which takes into a threaded hole in the lower end of the tool, and is provided with a shoulder bearing against the lower end of the socket *G*.

The lever *F* has the detent *f* pivoted thereto at *f'*, and the ratchet teeth *d* and detent *f* are so formed that the detent acts to cause the ratchet disk to revolve with the lever as the latter is turned in either direction, it being necessary of course to swing the detent around on its pivot according to the direction in which it is desired to turn the ratchet disk together with the cutting tool. The detent is kept in engagement with the ratchet teeth by means of the spring *z*, secured to the lever and adapted to bear against either one of the pins *f*² on both sides of the axis of said detent.

The operation of my invention is apparent. The pipe to be cut is centered with the tool by means of the block *B*, and then by means of the lever *F* the ratchet disk is turned car-

rying with it the tool *g*, which is adjusted against the surface of the pipe by the set screw *g*.

Having now fully described my invention,
5 I claim—

In a pipe cutter the combination of a circular frame provided with legs and holding-block sockets projecting from the periphery, holding-blocks therein and a counter-sunk annular chamber B³, an annular block C in said
10 chamber, a disk D having ratchet teeth on its periphery, a cutter holding socket G, and a

cutter *g* therein and mounted on said disk, and a collar E projecting from its face, with a lever F having an opening fitting on the collar E, and a spring detent mounted on said lever, substantially as described. 15

In witness whereof I have hereunto set my hand this 23d day of January, 1892.

THEO. R. BRIEN.

Attest:

D. REINKLE,
FRANK L. STEVENS.