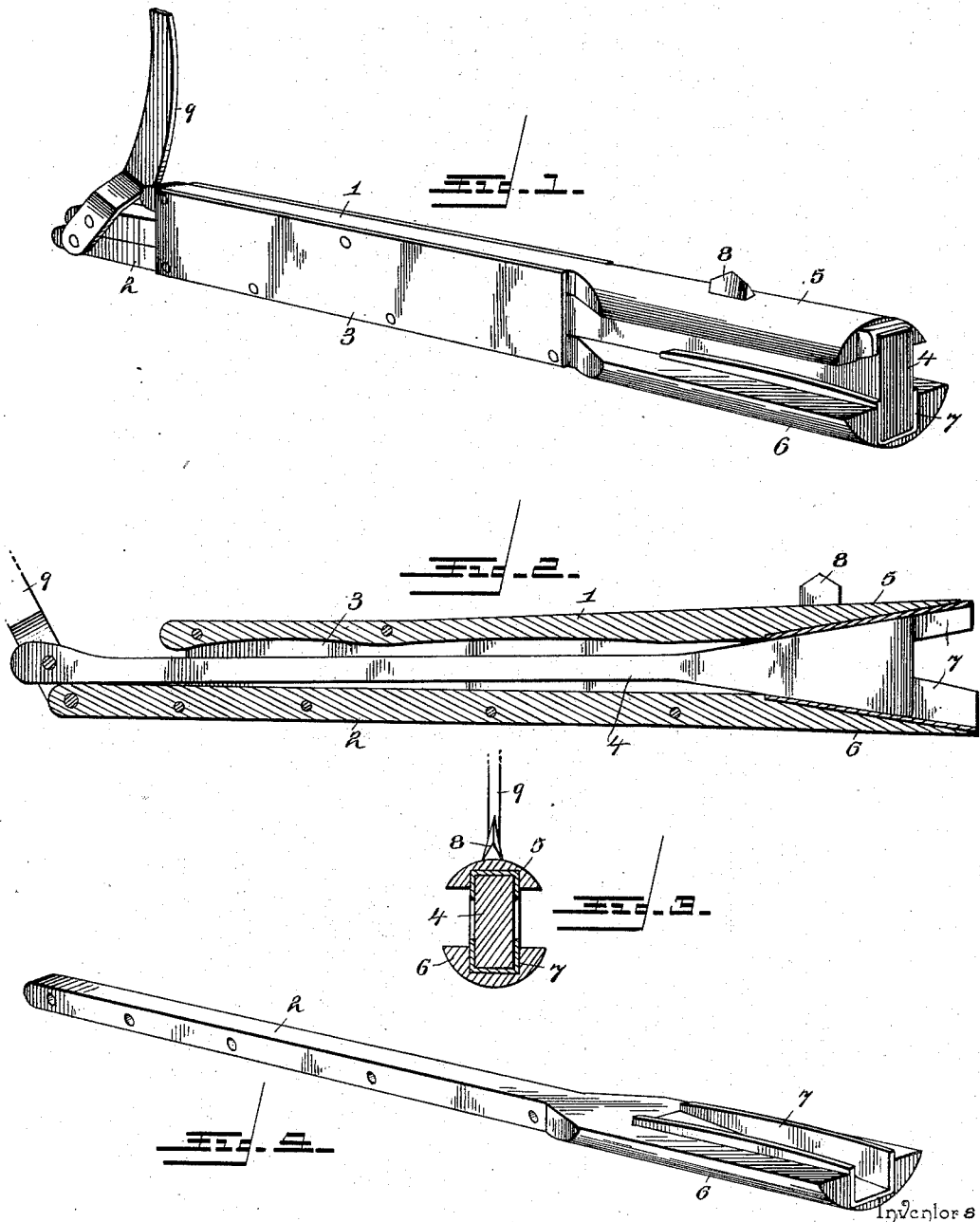


(No Model.)

C. ROBERTS & C. H. HOLLISTER.
PIPE CUTTER.

No. 565,569.

Patented Aug. 11, 1896.



Witnesses
Thos W Riley
J. F. Riley

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UNITED STATES PATENT OFFICE.

CHARLES ROBERTS, OF CLEARWATER AND CHARLES H. HOLLISTER, OF
DOWNEY, CALIFORNIA.

PIPE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 565,569, dated August 11, 1896.

Application filed November 26, 1895. Serial No. 570,167. (No model.)

To all whom it may concern:

Be it known that we, CHARLES ROBERTS, residing at Clearwater, and CHARLES H. HOLLISTER, residing at Downey, in the county of Los Angeles, State of California, citizens of the United States, have invented a new and useful Pipe-Cutter, of which the following is a specification.

The invention relates to improvements in pipe-cutters.

The object of the present invention is to provide a simple and inexpensive device designed for cutting holes or slots in Artesian-well pipes and adapted to enable the holes to be cut with great facility without liability of distorting, weakening, or otherwise injuring the pipes.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a pipe-cutter constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view, the parts being expanded. Fig. 3 is a transverse sectional view. Fig. 4 is a detail view of the pipe-engaging portion of the lower section or bar of the device.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 and 2 designate upper and lower bars spaced apart and connected at opposite sides by plates 3, which form a casing and which receive a sliding wedge 4, and the latter is interposed between the upper and lower bars or sections and is adapted to expand or spread the pipe-engaging portions 5 and 6. The pipe-engaging portions 5 and 6 are substantially semicircular and conform to the general configuration of the interior of a pipe. The lower segmental portion 6 is designed to have its curved face arranged on a greater curve than that of the interior of the pipe, in order that it may be supported at the side edges instead of at the bottom to prevent the pipe from contracting and becoming distorted or oval in cross-section during the operation of the cutter.

The upper and lower bars or members, which are preferably constructed of steel, are provided at the inner faces with longitudinal grooves forming guides or ways 7, receiving the wedge proper, which is substantially triangular and adapted to operate as a double wedge in expanding the parts to force a chisel projection 8 into a pipe. The lower bar or member is rigidly secured to the adjacent portion of the side plates, and the upper bar or member has its inner or rear end secured to the plates 3, and it has sufficient resiliency to permit it to be sprung outward by the wedge in operating the cutter, and the resiliency of the upper bar will cause the latter to return to its initial position and retract the cutter from a pipe when the wedge is moved outward after the operation of cutting has been completed at that particular point.

The cutter is operated by a slightly-curved lever 9, having its lower portion bifurcated and pivoted to the inner or rear end of the shank of the sliding wedge and fulcrumed on the adjacent end of the lower bar or section 2, which extends slightly beyond the upper bar or section 1; but the operating-lever may be readily connected to the upper section or bar and the sliding wedge if desired, the arrangement illustrated in the drawings being preferable.

In cutting slots or holes in a pipe the latter, as will be understood by those skilled in the art, is placed in a horizontal position, with one end clamped in a vise or the like, and a scantling or other suitable support is arranged beneath the upper portion of the cutter to form a guide for the same, and the terminals of the bifurcated portion of the operating-lever project below the lower section or member to engage such member or scantling to form a guide or keeper to retain the cutter thereon. In cutting a pipe the slots or openings are preferably arranged in a zig-zag or wavy line to prevent any liability of the pipe splitting, as some pipes will split when slots or openings are arranged in straight lines, and by swinging the operating-lever to one side or the other the cutting point or projection 8 is carried from one side to the other to cut the slots or holes as desired.

It will be seen that the pipe-cutter is exceedingly simple and inexpensive in construction, that it is capable of easy operation, and that the parts are arranged in such a manner that any part when it becomes worn may be readily replaced by a new part.

Other advantages of the invention will be readily apparent and appreciated by those skilled in the art to which this invention pertains.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any advantages of the invention.

What we claim is—

1. In a pipe-cutter, the combination of opposite bars or sections provided with substantially semicircular portions, one of the semicircular portions having its curved face arranged on a greater curve than the interior of the pipe in order to be supported only at its side edges on the pipe to prevent the same from collapsing, and the other semicircular portion being provided with a cutting point or projection, and a sliding wedge interposed between the bars or sections and adapted to expand the same to drive the cutting point or projection into a pipe, substantially as described.

2. In a pipe-cutter, the combination of upper and lower sections or bars provided with substantially segmental portions having ways at their inner faces, said plates connecting the bars or sections in rear of the segmental portions, a cutting point or projection mounted

on one of the segmental portions, a sliding wedge interposed between the bars or sections and adapted to spread the same, and an operating-lever fulcrumed on one of the bars or sections and connected with the sliding wedge and adapted to reciprocate the same, substantially as described.

3. In a pipe-cutter, the combination of the upper and lower bars 1 and 2, spaced apart and having substantially semicircular portions 5 and 6, provided on their inner faces with longitudinal grooves, the lower semicircular portion 6 having its curved face arranged on a greater curve than the interior of a pipe, whereby it is supported at its edges to prevent the pipe from collapsing, the side plates secured to the side edges of the bars 1 and 2, the bar 2 being rigidly secured to the plates, and the other bar 1 being free a sufficient distance to render it resilient, a sliding wedge arranged in the grooves of the semicircular portions of the bars, a cutting point or projection mounted on the upper semicircular portion and disposed longitudinally of the same, and a lever fulcrumed on the lower bar and connected with the sliding wedge, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

CHARLES ROBERTS.

CHARLES H. HOLLISTER.

Witnesses:

D. D. DE NURE,

W. C. SMITH.