

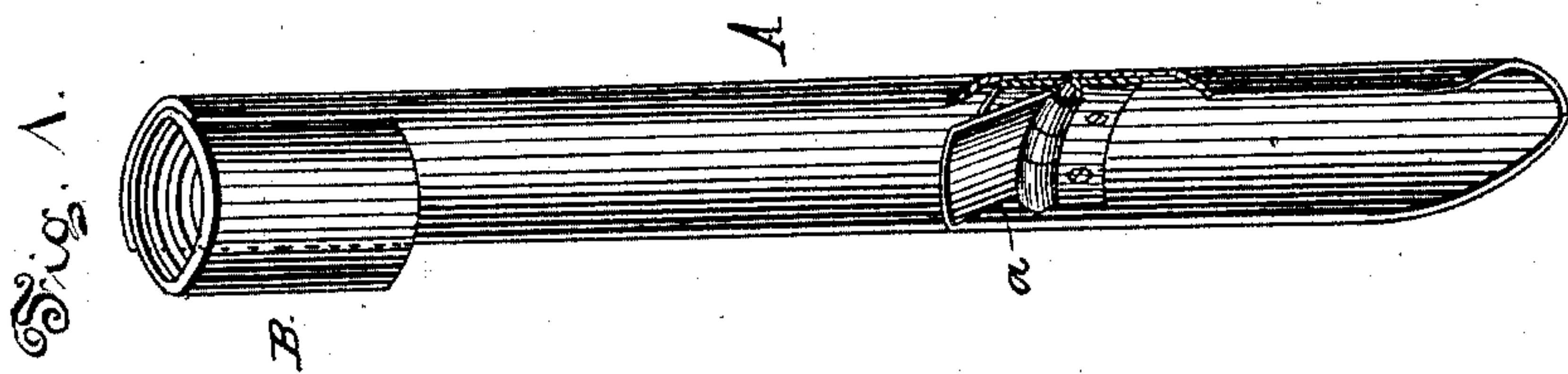
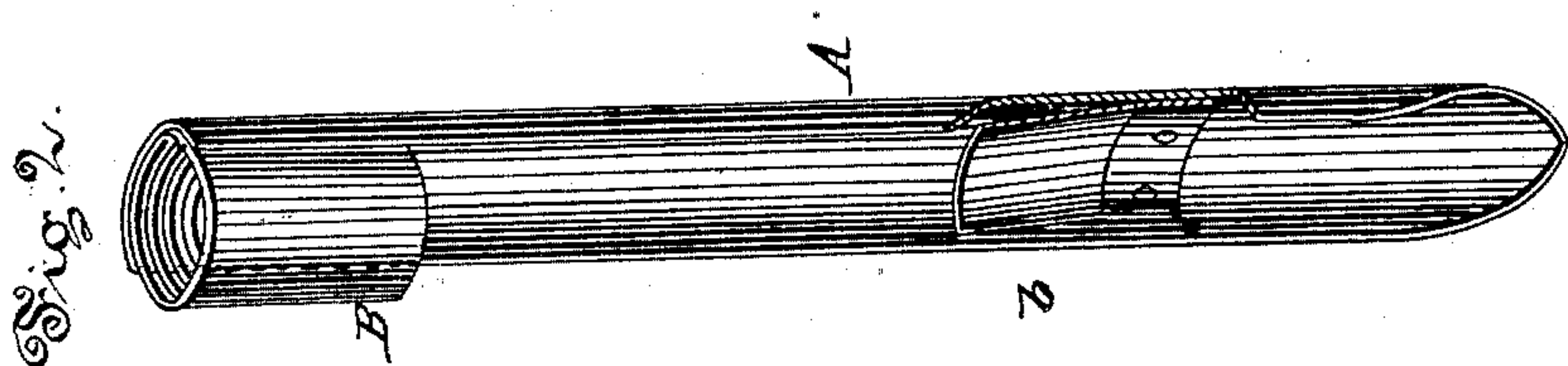
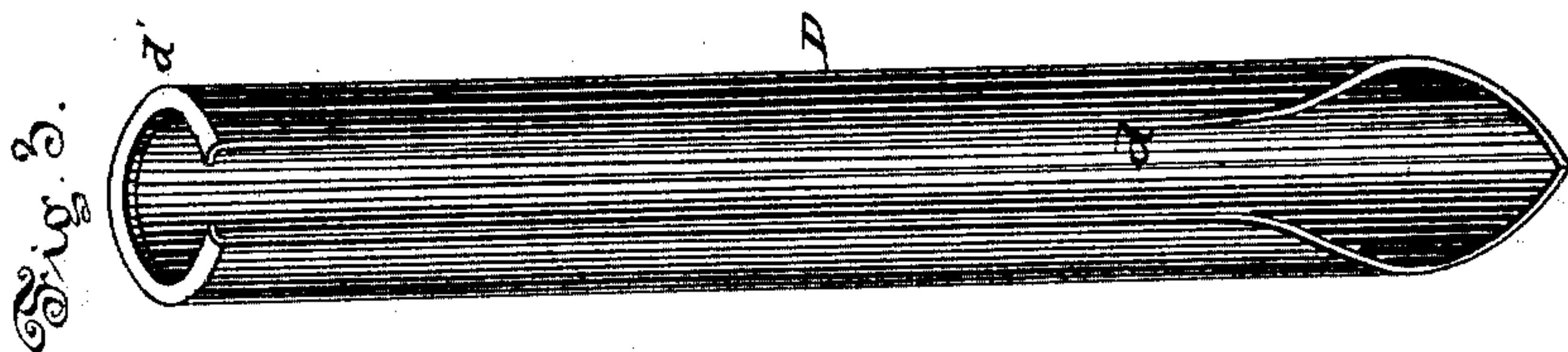
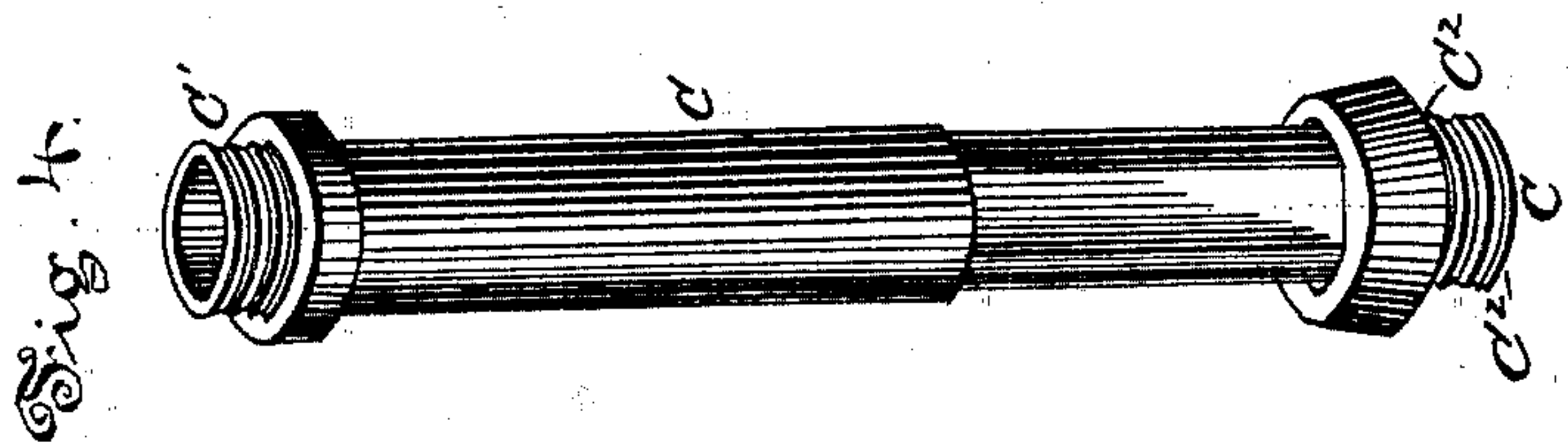
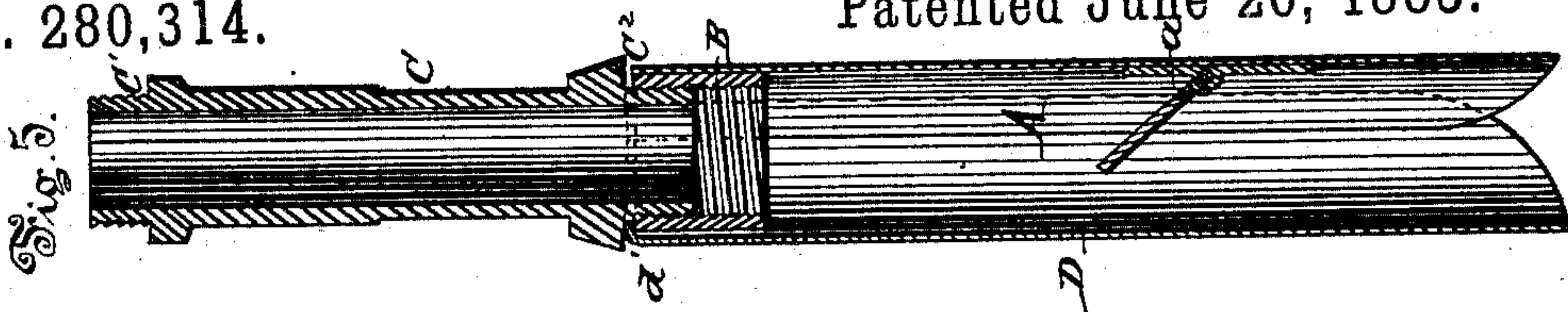
(No Model.)

L. R. HITCHCOCK & J. W. LUFKIN.

SUCKER ROD EXTRACTOR FOR OIL AND OTHER WELLS.

No. 280,314.

Patented June 26, 1883.



WITNESSES:

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LUKE R. HITCHCOCK AND JOHN W. LUFKIN, OF FOUR MILE, NEW YORK.

SUCKER-ROD EXTRACTOR FOR OIL AND OTHER WELLS.

SPECIFICATION forming part of Letters Patent No. 280,314, dated June 26, 1883.

Application filed February 23, 1883. (No model.)

To all whom it may concern:

Be it known that we, LUKE R. HITCHCOCK and JOHN W. LUFKIN, citizens of the United States, residing at Four Mile, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Sucker-Rod Extractors for Oil and other Wells; and we 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.

Our invention relates to certain new and useful improvements in extractors for raising or removing sucker-rods from oil, salt, or other wells when they have parted or broken, leaving a portion of the sucker-rods in the tubing in the well, often causing great delay in raising it, and in some cases requiring the withdrawal of the tubing, thereby incurring expense and the risk of dropping the tool in the tubing in the well; and the invention consists in novel features of construction and combination of parts, all as will be hereinafter fully described, and set forth in the claims hereto annexed.

Referring to the accompanying drawings, Figures 1 and 2 are views in perspective of a spear provided, respectively, with a pivoted or spring catch; Figs. 3 and 4, views in perspective, respectively, of the shell and section of sucker-rod; Fig. 5, vertical section of the several parts of the sucker-rod extractor when connected together.

In the drawings, A represents the spear, having a pivoted catch, *a*, or a spring-catch, *b*, near its lower end, and a socket, B, at its upper end, provided with an interior screw-thread, by which it is connected to a section of sucker-rod C, having screw-threaded ends *c c'*.

D represents a metallic shell or shield for the spear A, which has a longitudinal slot, *d*, and a bent flange, *d'*, at its upper end, against which the socket B of the spear rests. The slot *d* permits of the shell or shield being contracted or expanded, and with the spear A completely surrounds the sucker-rod, thereby preventing any parts of the rod, loose rivets, or straps from coming in contact with the tubing as the shield or shell having the spear is drawn through it. The spear is rigidly se-

cured in the shell or shield, and both the shell or shield and spear held firmly in position by the screw-threaded end *c* of the section C, and the flange *c'* of said section C pressing or bearing against the flange *d'* of the shell or shield. On examining the rod where it is broken or parted, the operator can readily perceive whether he needs a spear with the pivoted catch *a* or the spring-catch *b*. The pivoted or spring catch inclines inwardly, as shown, and when the shell or shield reaches the parted or broken rod in the well or tubing it passes down over it and forces the catch back, and when raising the shell or shield the catch presses into or toward the wood or iron of the sucker-rod, takes a firm hold, and draws it out. The whole forms a combined shell or spear held firmly together by the section C of the sucker-rod, and as the shell or shield is drawn out of the tubing it will keep the sucker-rod (being removed) pressed against the catch and prevent it slipping off, and cannot be removed from the shell or shield until the section C is unscrewed. Then it comes out readily without resorting to means that might destroy the spear.

We are aware that a tool-extractor or drill-rod grab consisting of a tube-section provided with a catch is old, and such we do not wish to be understood as claiming, broadly, as of our invention.

The slotted shell or shield should be made as large as possible so as to just enter the tubing of the well, and so that the shell or shield will spring inwardly when coming in contact with dentations or any roughened surface on the interior of the tubing, and thereby pass readily by them.

We are aware that a slotted shield or shell having a catch connected to its interior surface is old, and such we do not wish to be understood as claiming as of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the spear A, having the pivoted or spring catch, of the slotted shell or shield D, and the section C for securing the spear and shell or shield together, substantially as and for the purpose herein shown and described.

2. The herein-described extractor for sucker-rods, consisting of the spear A, having pivoted or spring catch and screw-threaded socket B, the slotted shell or shield D, having the
5 flange d' , and the section C, provided with screw-threaded end and flange c^2 , substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

LUKE R. HITCHCOCK.
JOHN W. LUFKIN.

Witnesses:

W. B. PIERCE,
SOLOMON LAWTON.