

J. K. LAKE & B. McDEVITT.

TRACE-FASTENING.

No. 171,232.

Patented Dec. 21, 1875.

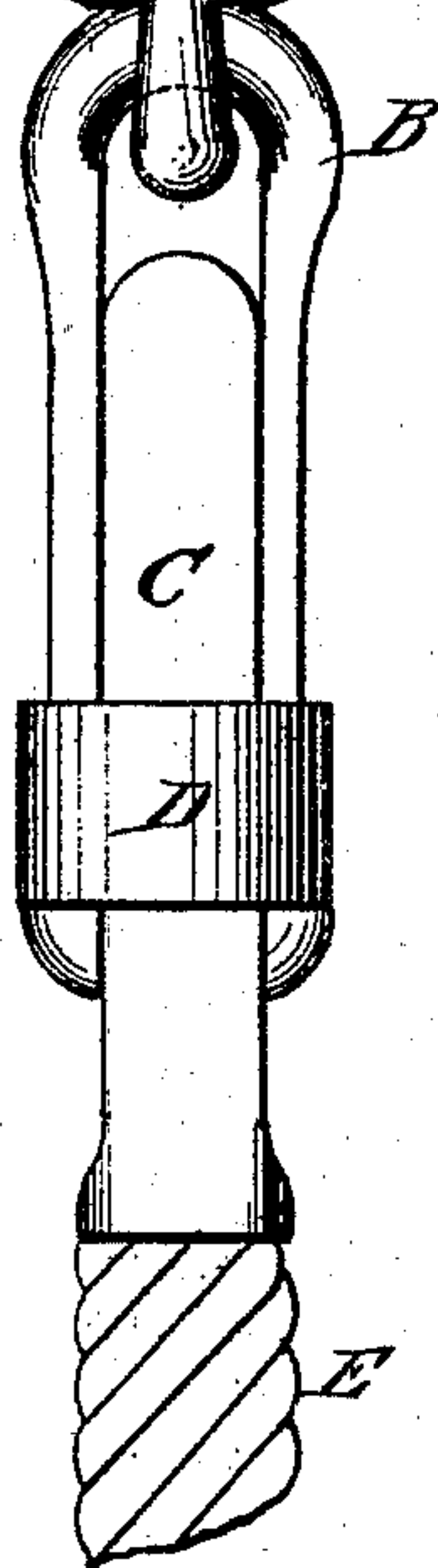
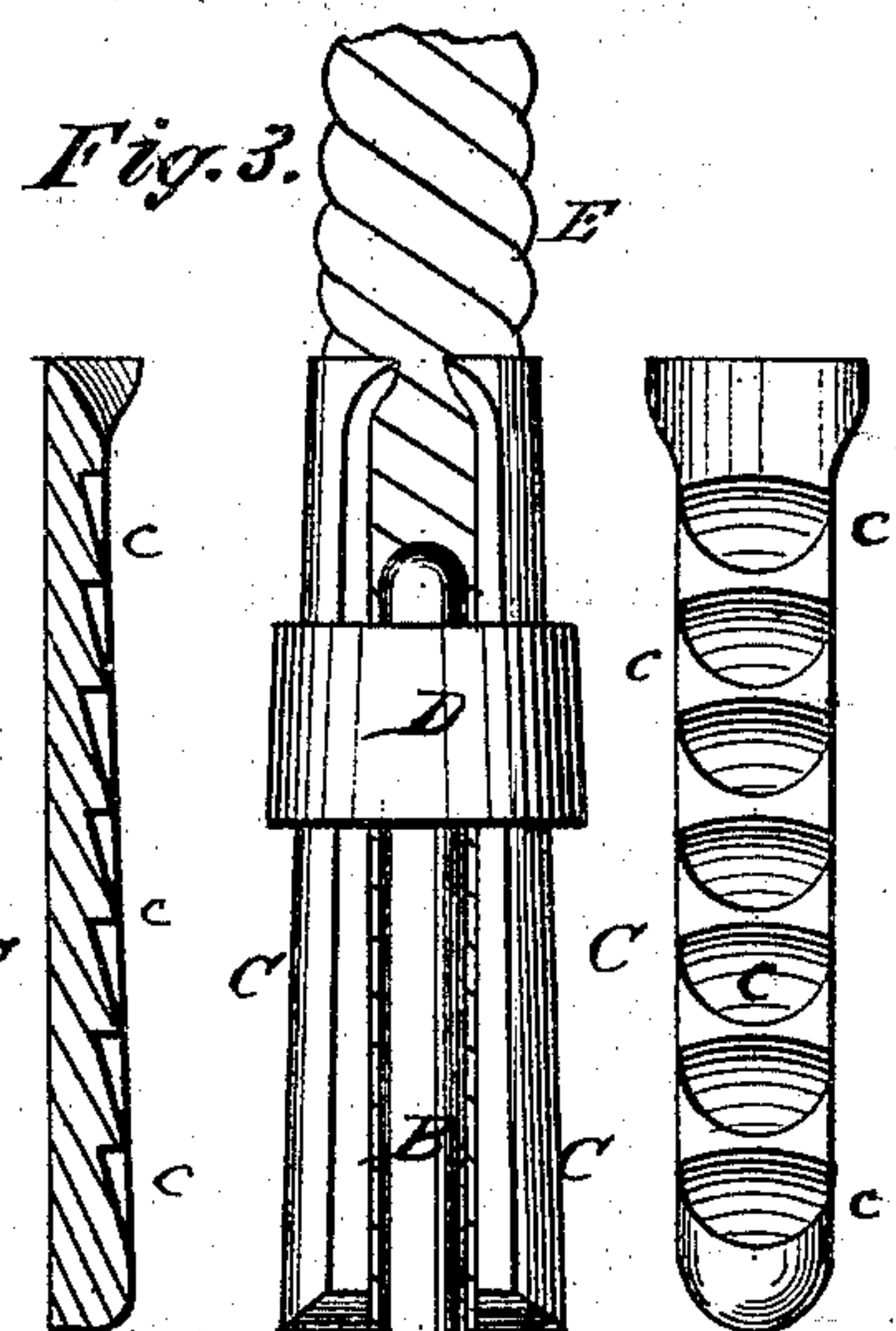
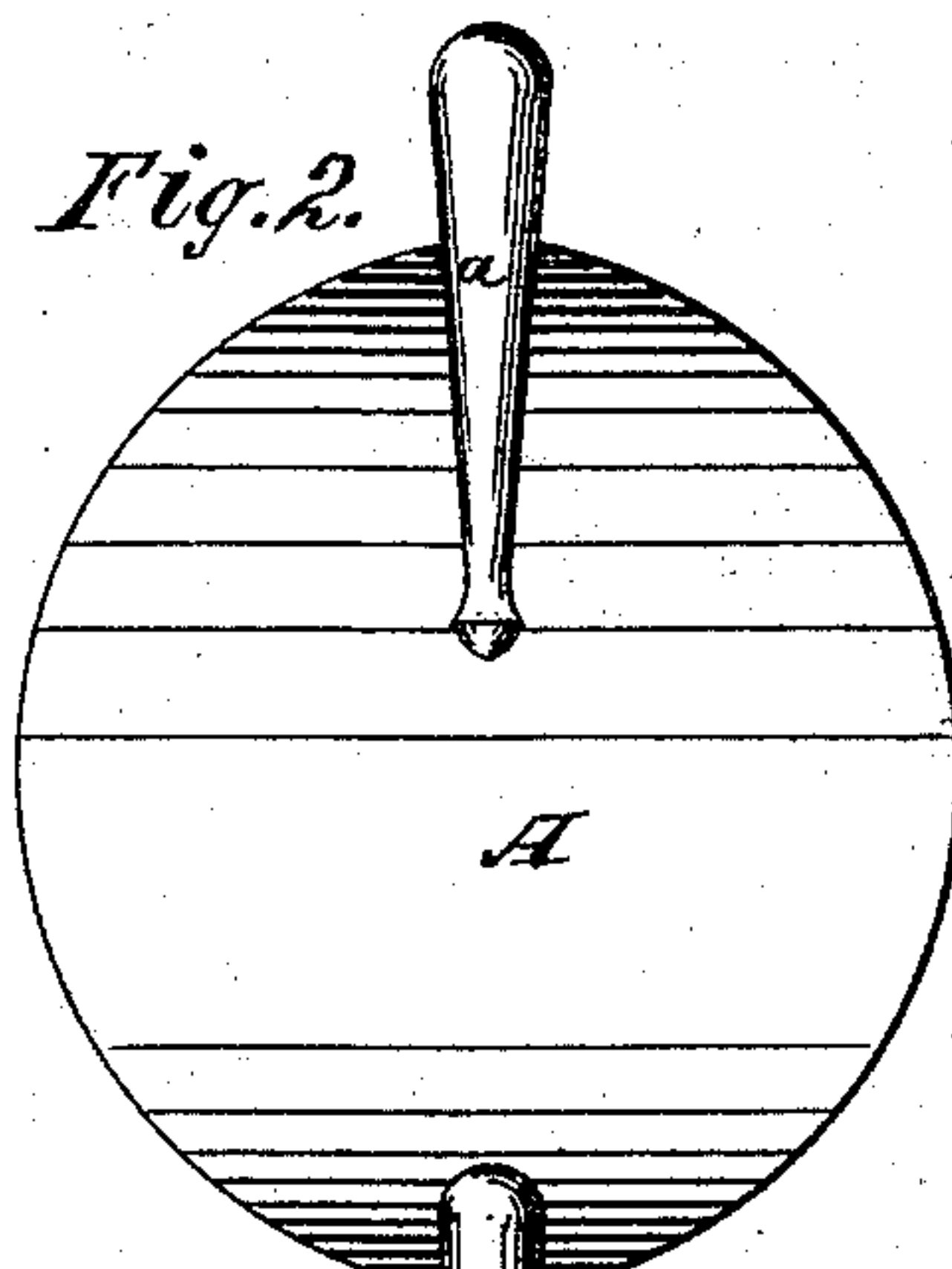
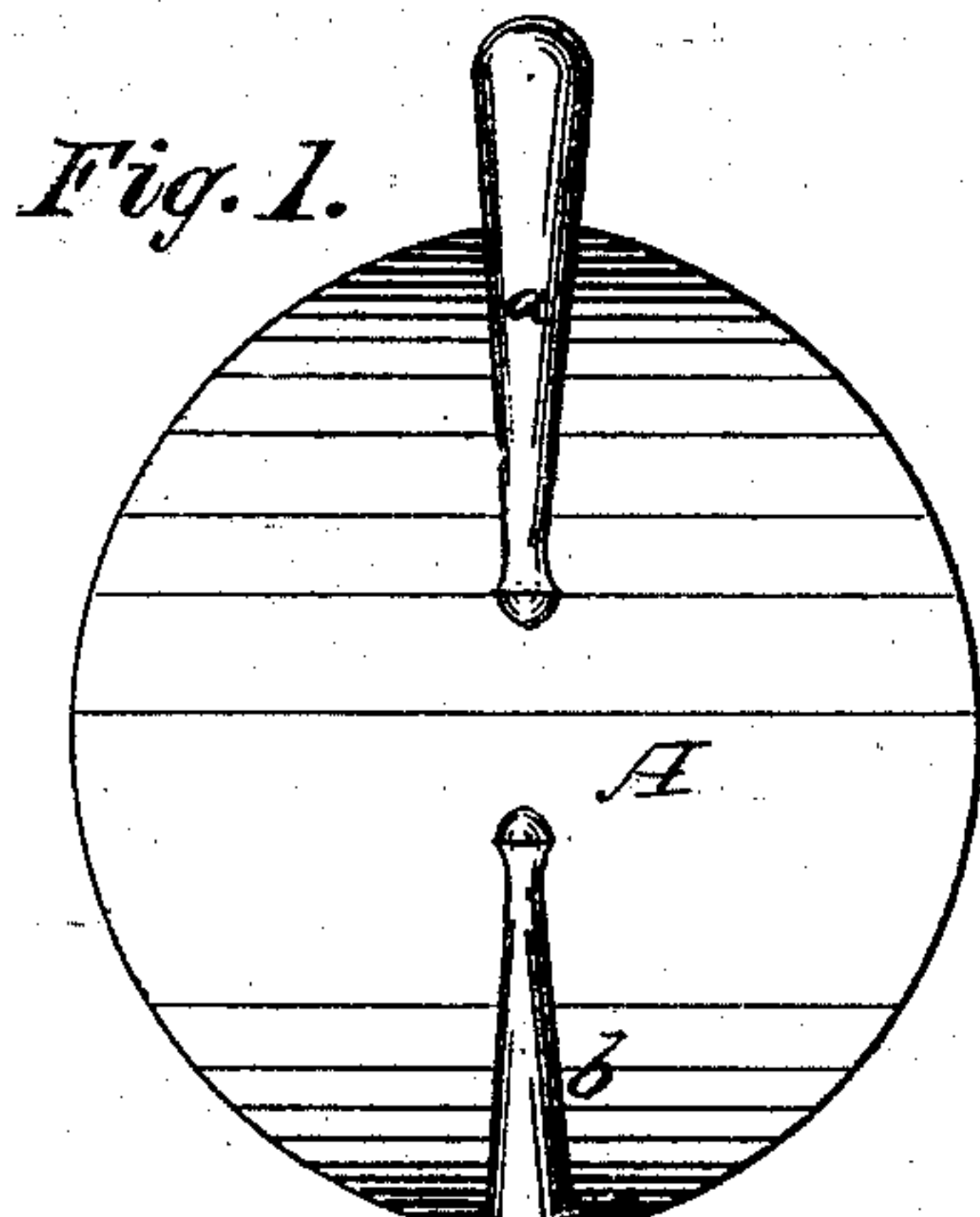


Fig. 4.

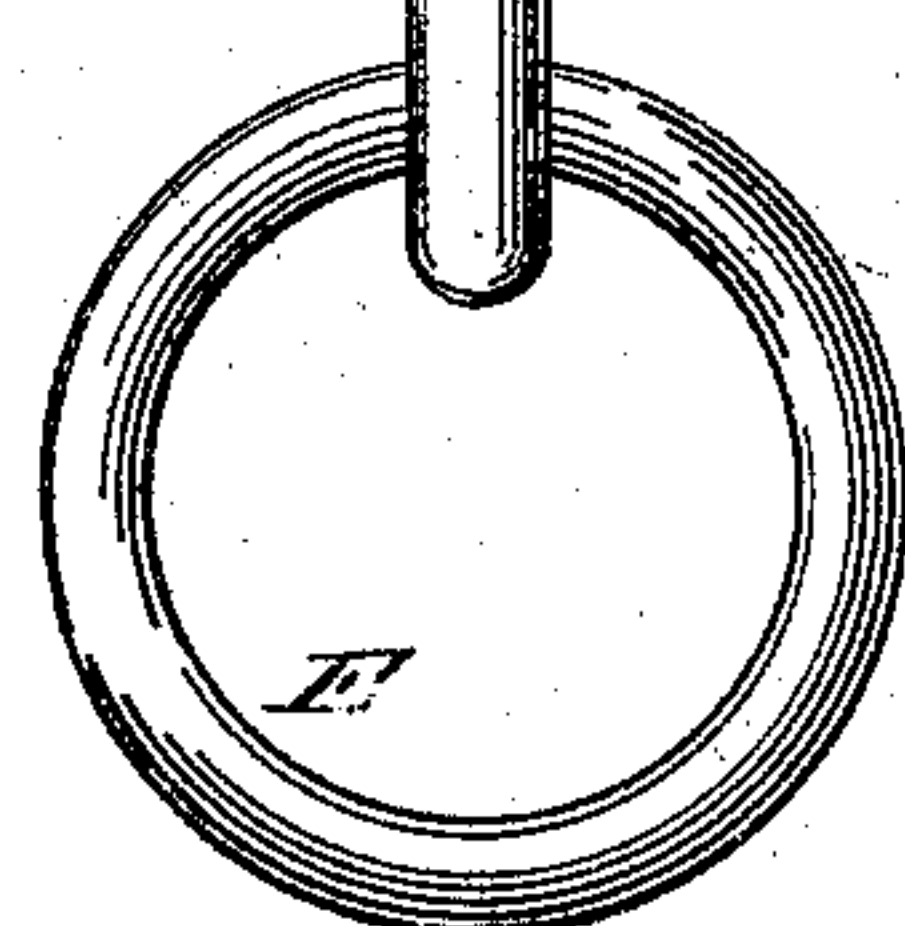
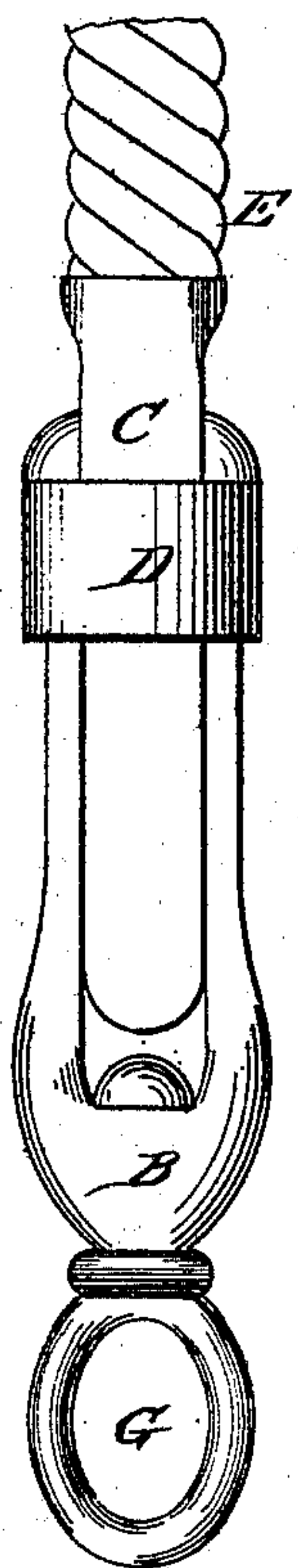
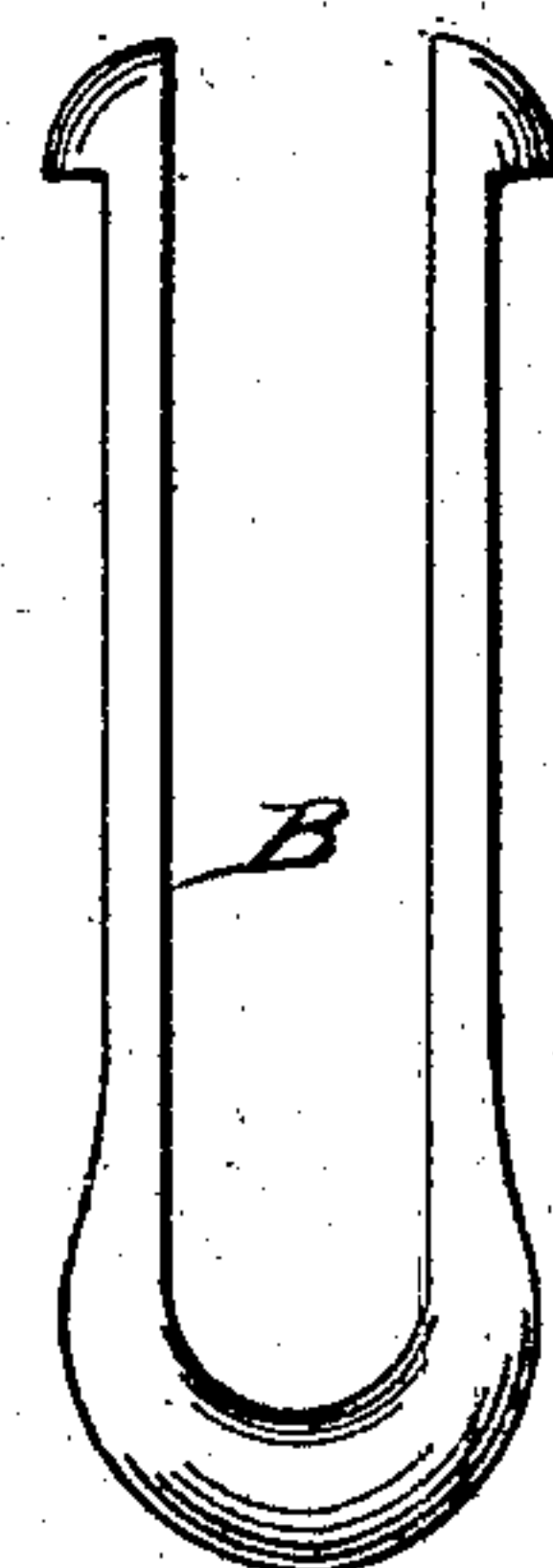


Fig. 5.



WITNESSES:

E. A. West.
Chas. Bond

James K. Lake.

Bernard M. Devitt.

INVENTORS.

UNITED STATES PATENT OFFICE.

JAMES K. LAKE AND BERNARD McDEVITT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN TRACE-FASTENINGS.

Specification forming part of Letters Patent No. **171,232**, dated December 21, 1875; application filed August 9, 1875.

To all whom it may concern:

Be it known that we, JAMES K. LAKE and BERNARD McDEVITT, of the city of Chicago, Cook county, State of Illinois, have invented new and useful Improvements in Fastening Trace Attachments to Ropes, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are plan views of the attachment for the front end of the trace; Fig. 3, a similar view of the back end with details; Fig. 4, a similar view, with a swivel cockeye or ring; and Fig. 5 a view of the coupling-staple detached.

The object of this invention is to connect the coupling-fastenings of tugs or traces with the ends of the rope, so that they may be readily applied and removed when the rope or tug is worn out or broken; and its nature consists in providing wedge-shaped clamping-irons, which are compressed upon the rope by a sliding ring, or rings, to which the fastenings are attached, and in the several improvements and combinations hereinafter described or claimed as new.

In the drawings, A represents the coupling-plate; B, the eye or staple; C, the wedge-shaped plates; D, the sliding ring; E, the rope; F, the attaching-ring; G, the swivel ring or eye; *a*, the hook for attaching the plate A to the hame hook or ring; *b*, the hook for attaching the tug or trace to the plate A, and *c* corrugations on the inner face of the wedge-shaped plates C.

The metal parts are made to fit the size of rope used—three-quarter inch rope being preferred for traces.

The eye or staple B is provided with hooks at the open end, as shown at Fig. 5. The wedge-shaped plates C are made thin at their inner ends, and considerably thicker at their outer ends, as shown. These plates C are provided on their inner faces with corrugations *c*, made to fit the strands of rope as nearly as is practicable. The ring D fits over the plates C, and over the eye or staple B.

The plate A is made of a thin piece of metal, made broad, as shown, to prevent wearing

into the collar, and is provided at the end next to the hame with a hook, *a*. The opposite end may be provided with a similar hook, *b*, as shown at Fig. 1, or it may be permanently attached to the eye B, as shown at Fig. 2. These plates A are made, by preference, of malleable cast-iron, and, when attached to the hame, the hook *a* is driven down against the plate, so as to prevent its detachment, and also to prevent the lines from being caught under the hook *a*. When made of this material, or other yielding metal, the hooks *a* can be opened, when a change is desired, for any purpose, and again driven back against the plate.

The hook *b* is usually left open, and this form is preferred, for the reason that in changing horses, particularly in street-cars, the traces may be left attached to the whiffletrees, so that in changing teams only the hames and collars require changing; and as the hooks *b* open toward the front the lines, if caught, do not remain in them.

The other metal parts may also be made of malleable cast-iron or other suitable material.

In applying the several parts the wedge-shaped clamps *c* are placed on opposite sides at the end of the rope. The eye or staple B is then applied, the ring D is then slipped on over the plates and over the hooks or projections at the end of the eye B, and forced down until the parts are locked, when the trace is ready for use. It will be obvious that any subsequent pulling by the horses will only lock the parts tighter.

When rings like F are used they will, of course, be placed in position before the staple or eye B is applied to the rope.

The swivel cockeye G, shown in Fig. 4, allows any undue twist to straighten itself, and for this purpose is applicable to straps as well as to cordage or ropes.

This device, while designed for tugs or traces, will be found useful, by first interlocking two of the staples B, for permanently or temporarily splicing ropes, and may be used for connecting them to other attachments.

What we claim as new, and desire to secure by Letters Patent, is as follows:

1. The combination of the wedge-pieces C, staple or eye B, and ring D with the rope or trace E, substantially as specified.
2. The plate A, provided with the hook *a* and hook *b*, or staple B, substantially as and for the purpose specified.
3. The wedge C, provided with corruga-

tions or serrations to fit the strand of the rope, substantially as specified.

JAMES K. LAKE.

BERNARD McDEVITT.

Witnesses:

E. A. WEST,

O. W. BOND.