

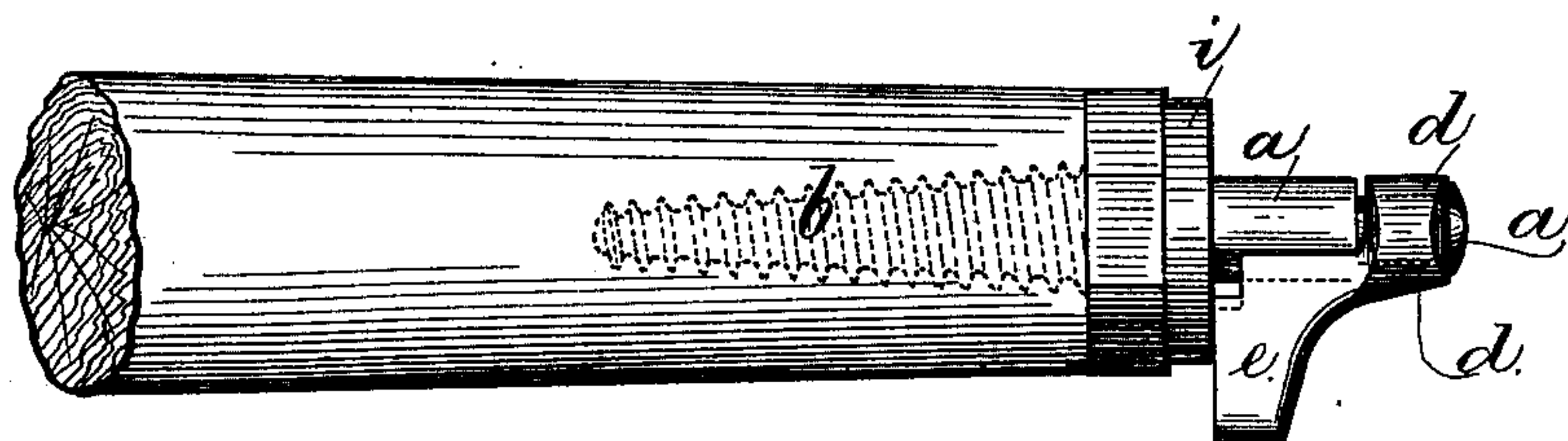
(No Model.)

W. M. VALENTINE.  
Trace Fastening.

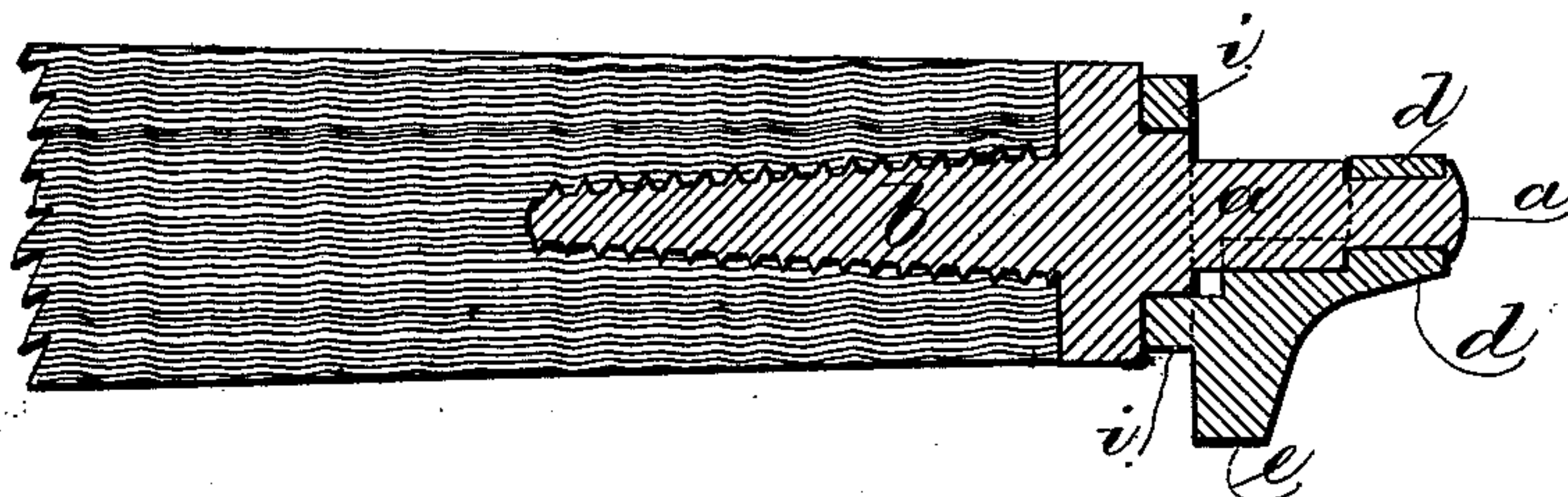
No. 235,182.

Patented Dec. 7, 1880.

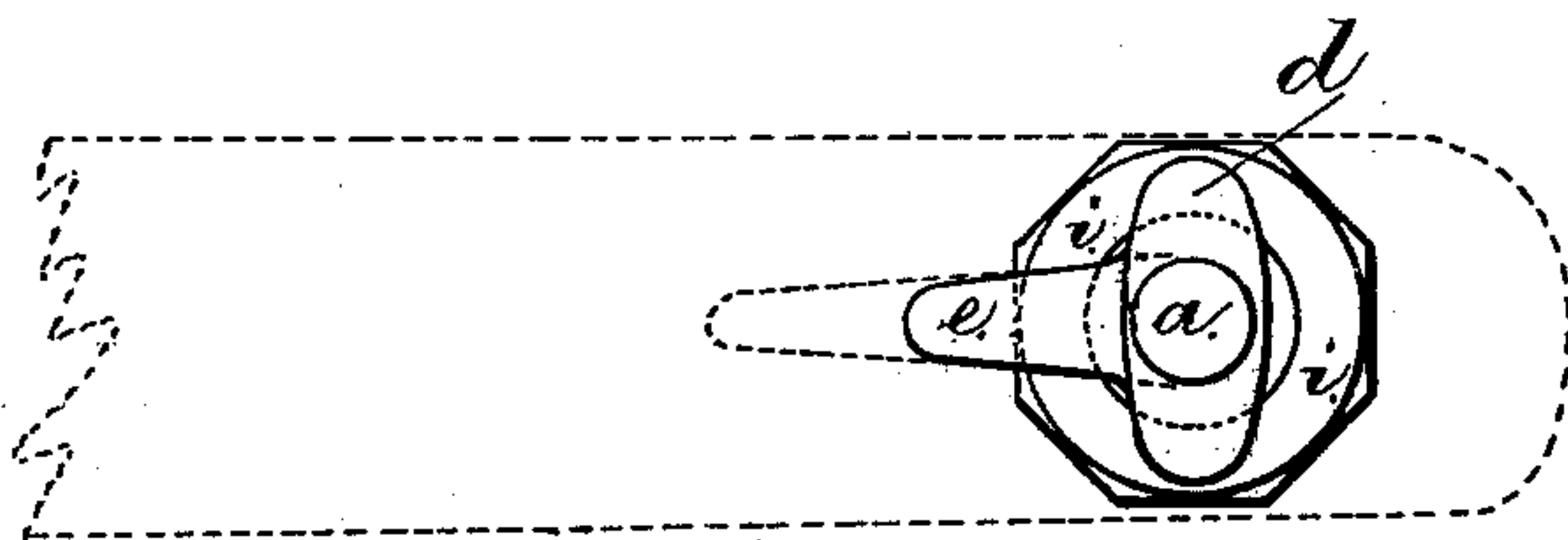
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



Witnesses,

Harold Serrell  
Chas H. Smith

Inventor

per William M. Valentine.  
Lemuel W. Serrell atty

# UNITED STATES PATENT OFFICE.

WILLIAM M. VALENTINE, OF GLEN COVE, NEW YORK.

## TRACE-FASTENING.

SPECIFICATION forming part of Letters Patent No. 235,182, dated December 7, 1880.

Application filed October 21, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM M. VALENTINE, of Glen Cove, in the county of Queens and State of New York, have invented an Improvement in Trace-Fastenings, of which the following is a specification.

Traces have been fastened at the ends of the whiffletrees by draft-eyes and buttons of various characters. In some instances the metal pin at the end of the whiffletree has had a T-head, and there has been a revolving piece upon the pin having a toe that enters the loop of the trace. These parts are liable to become bent, and hence useless.

My invention is made for simplifying the construction, and rendering the parts strong and reliable, and insuring the proper connection of the trace to the whiffletree.

I employ a button-head, a loop-plate, and a ring, all in one piece, at the pin which projects from the end of the whiffletree, said parts being secured to such pin by the riveted head thereof, so that they may be turned on the pin when connecting or disconnecting the trace; but said parts are not liable to become disconnected from the trace, because the loop-plate, passing into the loop, retains the T-head at right angles to the trace.

In the drawings, Figure 1 is a plan view of the trace-fastening; Fig. 2 is an end view, and Fig. 3 is a sectional plan.

The pin *a* at the end of the whiffletree is attached to said whiffletree either by the tapering screw *b*, that is screwed into a hole in the end of the whiffletree, or by a thimble or socket, into which the end of the whiffletree is passed in the usual manner.

The button-head *d*, loop-plate *e*, and ring *i*

are made in one piece. The ring *i* surrounds the pin *a* or a circular base at the inner end of said pin. The reduced end of the pin *a* passes through the button-head *d*, and it is formed into a head by riveting it up, so that the parts are secured to the pin *a*, but allowed to turn, and the inner end of the loop-plate *e* is recessed, so as to set against the round sides of the pin *a*.

When the trace is applied the button-head is turned horizontally, or nearly so, the loop of the trace is forced over it, and then the loop-plate is forced downwardly and into the loop of the trace, and the button-head assumes a position at right angles to the trace, so that the trace cannot slip off the pin *a*; neither can the parts change position in relation to the trace, because the loop-plate is within the loop of the trace and is held by it. The reverse movement is employed to disconnect the trace.

It will be apparent that there is nothing that is loose or liable to rattle in this trace-fastening, and the ring at the inner end of the fastening strengthens the parts, and this and the end of the loop-plate aids in supporting the pin *a*.

I claim as my invention—

The button-head *d*, loop-plate *e*, and ring *i*, in one piece, in combination with the pin *a*, that passes through the ring *i* and head *d*, and is made with a rivet-head to secure the parts in place, substantially as set forth.

Signed by me this 18th day of October, A. D. 1880.

WM. M. VALENTINE.

Witnesses:

ISAAC COLES,  
THOS. H. COLES.