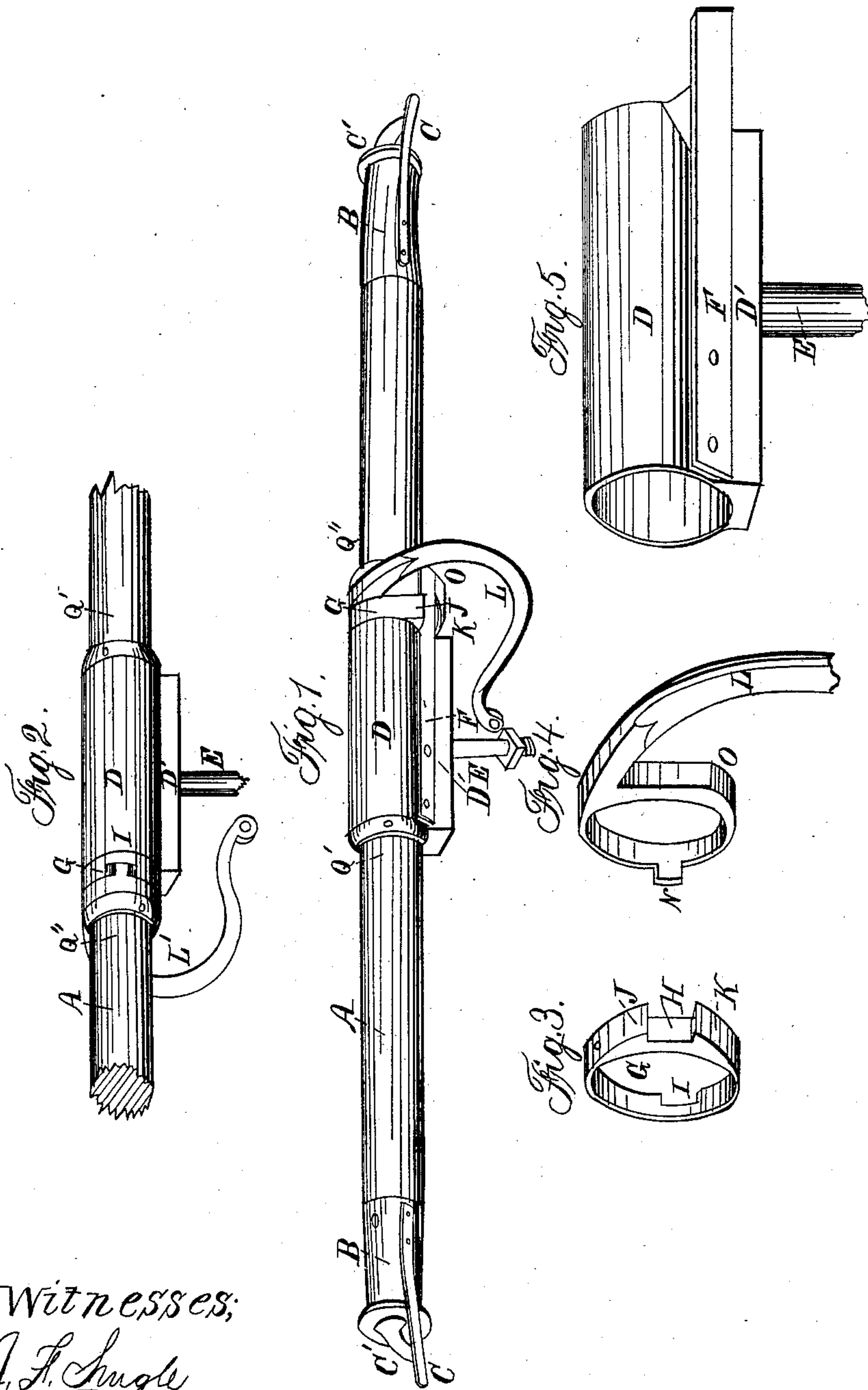


S. D. BOWKER.

Whiffletree.

No. 27,884.

Patented Apr. 17, 1860.



Witnesses;
J. H. Single
Rockwell

UNITED STATES PATENT OFFICE.

S. D. BOWKER, OF GENEVA, OHIO.

SELF-DETACHING WHIFFLETREE.

Specification of Letters Patent No. 27,884, dated April 17, 1860.

To all whom it may concern:

Be it known that I, S. D. BOWKER, of Geneva, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Safety-Whiffletrees; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a front view in perspective of my improved whiffletree; Fig. 2, a back view of a portion of the same, and Figs. 3, 4, and 5, details on an enlarged scale.

The letters of reference marked thereon refer to similar parts in all the drawings.

The main point of my invention consists in the mode of revolving the bar or body of the whiffletree so that the tug-hooks at its ends can be quickly reversed for the purpose of disengaging the traces in case of emergency, or otherwise. This is accomplished by raising a peculiarly formed lever which lifts a spring that catches into a notch of a ring secured on said bar, the said spring being lifted in advance of the turning of said bar by an inclined projection on said lever. Also, in the mode of locking said bar by means of said spring and notched ring, to prevent the bar from turning only when actuated by said lever, thus securing it in condition for ordinary use.

The other feature of my invention is the employment of a cylindrical box for holding and supporting the whiffletree so that it is free to turn therein, and is provided with a shank for the purpose of attaching the said whiffletree to the doubletree, or to the draw-bar of the thills, by which means its ordinary horizontal, or sidewise movement is maintained.

To enable others skilled in the art to make and use my said invention I will proceed to describe its construction and operation.

A, Fig. 1, is the bar, or body of the whiffletree. This is simply a cylindrical bar of wood, with ends tapered to a shoulder.

B, B, are caps having tug-hooks C', C', projecting from their ends. C and C, are springs secured to the sides of said caps, and in contact with the ends of the said tug-hooks.

D is a hollow cylindrical box, having its lower side, D', somewhat thicker, and formed square and flat, as shown, from which projects a shank, E, with a screw nut at its extremity. F is a spring secured on

the lower part of said box D; G, a ring, or collar, secured to the body of the whiffletree. Said ring is constructed with a notch H, and another notch I, both located as shown in the drawing (Fig. 3). The notch H is formed by the raised portions J and K, the lower one (K) being somewhat slanting, as seen in the drawing.

L is the lever by which the bar is operated (its particular construction will be seen in Fig. 4). From the ring portion of the said lever projects the tongue N. O is a raised portion of the said lever. The lower end of the said lever is provided with an eye, for the purpose of attaching a strap or chain.

Q' and Q'' are collars, or clips, for securing the working mechanism in place.

All the parts of the said described whiffletree (except the bar and springs) may be of malleable cast iron, and plated or otherwise ornamented.

The different pieces, as described, are put together by first passing the body of the whiffletree through the box, D, to its middle; then the collar Q' is slid on and made fast in its place with screws. The ring G is now placed on the opposite end of said box, its notch, H, receiving the end of spring F, and then secured to the body of said whiffletree with screws. Now follows the lever L, the projection, or tongue, N, dropping into the notch I, of said ring, G; the lever is then secured to its place (the handle of course being under the bar) by collar C''. The whiffletree can now be attached to the doubletree, or to the draw-bar of the thills, by the shank E, securing it thereto by the screw nut, the lever being down, which leaves it in the ordinary condition for receiving the traces.

The operation is as follows: When it is required to liberate the traces the driver pulls the lever L upward, thereby rotating the bar A. It will be observed that as the lever begins to rise its raised part, O, comes in contact with the spring F, elevating it clear of the lower projection (K) of the ring G. It will be remarked the whiffletree bar does not begin to turn until the spring F, is fully raised above the said lower projection. The edge of this projection (K) is trimmed slanting, as shown, to prevent any disarrangement of action of said spring. Immediately after the spring is thus raised, the tongue N, of lever L, strikes the lower edge of notch I, of said ring

(G), and, as the lever continues its movement the bar A is turned until the traces disengage from the tug-hooks, which will be at about one third of a revolution of said
5 bar. The outside of the said tug-hooks are formed as delineated for the purpose of aiding the traces to slip off easily.

Having described the nature, construction, and operation of my invention what I claim
10 therein as new and desire to secure by Letters Patent is the following:

1. I claim the peculiar lever L, in combination with the ring G, and the spring F attached to the cylindrical box D; the said
15 lever being provided with a raised part O, and tongue N; and said ring with notches

H, and I, and slant or trimmed portion K, as described, and operating as and for the purposes set forth.

2. I claim the employment of the hollow
20 cylindrical box D for holding and sustaining the bar or body of the whiffletree so that it is free to turn therein; also the mode of attaching the whiffletree to the doubletree, or the draw-bar of the thills, by means of the
25 shank E and screw nut, for the purpose of maintaining its ordinary horizontal movement, as described.

S. D. BOWKER.

Witnesses:

J. F. SINGLE,

T. ROCKWELL.