

(No Model.)

W. J. HOWARD.
TRACE ATTACHMENT.

No. 382,002.

Patented May 1, 1888.

Fig. 1.

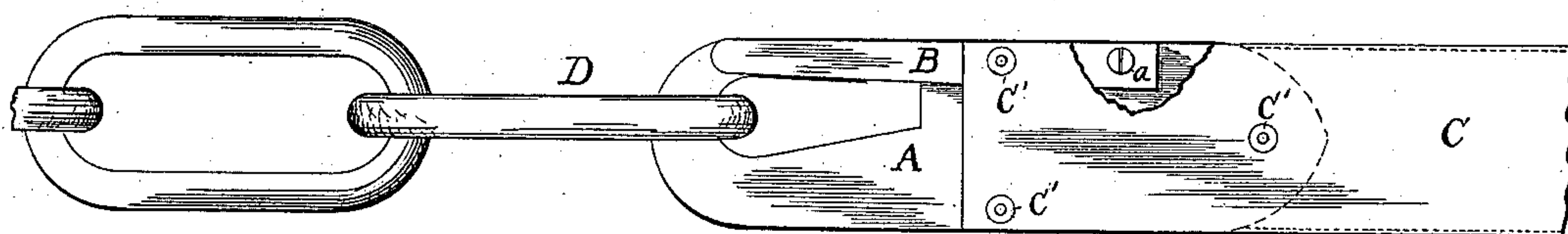
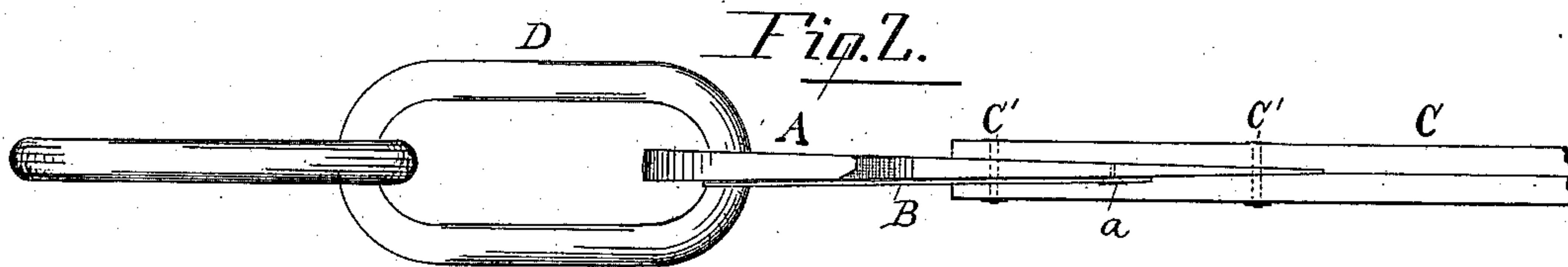


Fig. 2.



Witnesses.
Elihu D. Howe,
Henry J. Ward.

Inventor.
Willie J. Howard
By Joshua B. Webster Atty.

UNITED STATES PATENT OFFICE.

WILLIE J. HOWARD, OF MARIPOSA, CALIFORNIA.

TRACE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 382,002, dated May 1, 1888.

Application filed September 26, 1887. Serial No. 250,771. (No model.)

To all whom it may concern:

Be it known that I, WILLIE J. HOWARD, a citizen of the United States, residing at Mariposa, in the county of Mariposa and State of California, have invented certain new and useful Improvements in Trace-Hooks; and I do 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 ap-
10 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to a new and useful improvement in trace-hooks; and it consists in a flat iron plate of peculiar shape, riveted to the trace and provided with a peculiar overlapping steel spring-guard, as will be more fully shown.

20 The object of my invention is to prevent the other parts of the harness from getting into the hook and becoming entangled, and also from becoming easily detached from the links of the butt-chain connecting it with the whiffletree-hook.
25

Referring to the accompanying drawings, Figure 1 is a side view showing the hook in engagement with a link of the butt-chain, and showing also a portion of the trace broken
30 away so as to expose the screw which secures the steel spring to the plate. Fig. 2 is a top view of the same.

Let C represent the tug or trace of a harness, and D a link of the butt-chain. The tug is
35 riveted in two parts to a metal plate, A, of a flat wedge shape, rounding at its head and pointing at its end, so as to be easily inserted between the two parts of the tug. Two rivet-

holes, C', at the upper part and one at the lower part are used to attach the tug to the plate A. 40

The plate A contains the usual slot for the reception of the link D of the butt-chain. The outlet of this slot is protected by a flat steel spring, B, secured to the plate A by a set-screw, a, which permits of the spring being easily de- 45 tached, if desired, for repairs or renewal.

The spring B renders it impossible for the link D to become detached from the plate A, unless desired.

My invention is of great utility in the State 50 of California, where teams of fifteen or twenty horses are used upon combined harvesting-machines, the practice being to connect the same to the machine by the use of butt-chains and traces, as I have described. 55

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the trace, the hooked plate A, made tapering at its rear end where 60 it is fastened in the trace, and the flat laterally moving spring B, which closes the mouth of the hook, substantially as shown.

2. The combination of the trace and the flat hooked plate A, which is secured thereto, with 65 a spring which is secured to the side of the plate, and which has a lateral movement, so as to close the mouth of the hook, substantially as described.

In testimony whereof I affix my signature in 70 presence of two witnesses.

WILLIE J. HOWARD.

Witnesses:

JOSHUA B. WEBSTER,
HENRY I. WARD.