

No. 865,224.

PATENTED SEPT. 3, 1907.

H. APPLGATE.  
TRACE HOOK.

APPLICATION FILED JUNE 12, 1906.

Fig. 1.

Fig. 2.

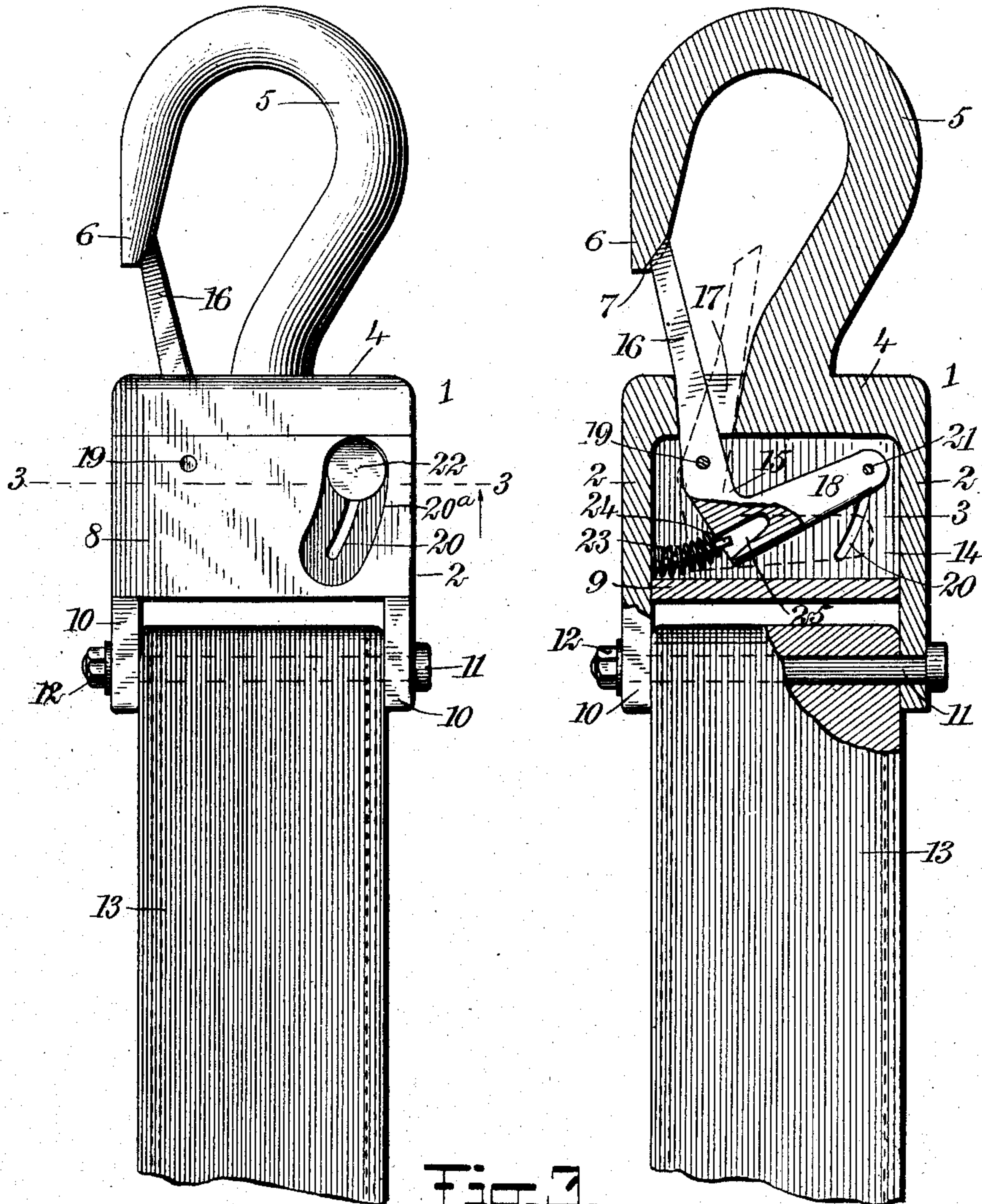
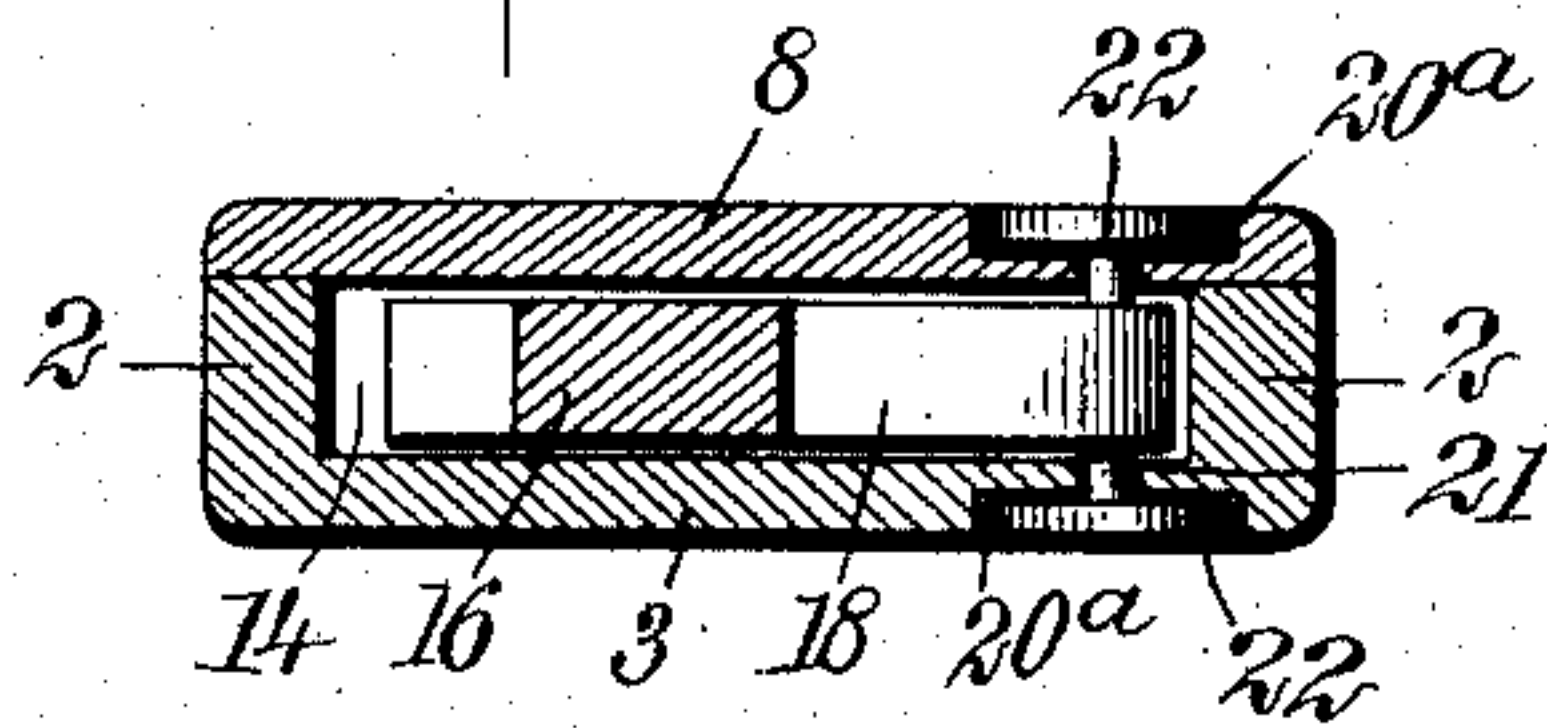


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## TRACE-HOOK.

No. 865,224.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed June 12, 1906. Serial No. 321,341.

*To all whom it may concern:*

Be it known that I, HOWARD APPLGATE, a citizen of the United States, and a resident of Long Branch, in the county of Monmouth and State of New Jersey, have  
5 invented a new and Improved Trace-Hook, of which the following is a full, clear, and exact description.

This invention relates to trace hooks and is especially useful in connection with devices of this character having spring pressed tongues adapted to prevent the  
10 traces from becoming detached from the whiffletrees.

The object of the invention is to provide a device of this class, simple and durable in construction and easy of manufacture, in which the tongue of the closing member of the hook may be opened by a simple manual  
15 operation, and in which the parts liable to be worn by use are inclosed in a boxing.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly pointed out in the claims.

20 Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, in which

Figure 1 is a side view of the invention, showing a  
25 portion of a trace attached thereto; Fig. 2 is a vertical cross section of the device; and Fig. 3 shows a cross section on the line 3—3 of Fig. 1.

Referring more particularly to the parts my invention consists of a body 1, having integral ends 2 and a  
30 side 3, as well as a top 4, from which projects the hook 5 of the usual shape for the purpose. The hook extends from the upper portion of the body and is curved back toward the same, ending in a point 6, in which is formed a recess 7, for a purpose to appear hereinafter. The  
35 side 8 of the body, opposite to the integral side 3, is formed in one piece with the bottom 9, and is attached to the other parts of the body as will appear hereinafter. The ends 2 of the body are extended to form the parallel projecting members 10 in which is mounted a  
40 bolt 11, secured in place by a nut 12 on the threaded end. This bolt is adapted to pass through a loop at the end of the trace 13, and thus securely attach the hook to the trace.

Within the chamber 14, formed between the ends  
45 and sides of the body, is located an elbow lever 15, having a tongue 16 extending through an opening 17 provided for the purpose in the top of the body, and an arm 18, lying entirely within the chamber. The elbow lever is pivotally mounted within the chamber  
50 by means of a pin 19, which also serves to secure the side 8 and bottom 9 to the body. The sides 3 and 8 have slots 20 formed therein, through which project pins 21 carried by the arm 18 of the lever. The pins may be formed on the arm by inserting a short piece of  
55 wire or the like through a suitable opening bored in the arm. Each of the pins beyond the sides 3 and 8 re-

spectively, carries a button 22, by means of which the arm 18 may be depressed. These buttons are located in recesses 20<sup>a</sup> which are formed in the sides around the slots 20. The outer surfaces of the buttons are sub-  
stantially flush with the surfaces of the sides. It will be understood that in this way it would be difficult for the lever to be accidentally operated by engagement with some projection upon the harness or the vehicle, as the buttons do not project beyond the surfaces of the  
60 sides. There will be, however, no difficulty in depressing the arm 18 by means of the buttons, with the finger. The slots formed in the sides are arcs of circles whose centers are at the pin 19, to permit the pins 21 to move in the slots as the arm is pivoted about the pin 19.  
70

The normal position of the lever is shown in Figs. 1 and 2, and in this normal position the tongue 16 extends toward the point of the hook and seats in the recess 7. The lever is held in a normal position by means of a helical spring 23, which is loosely mounted upon a pin  
75 24 which projects inwardly from an end of the chamber. The lever 15 is provided with a recess 25 into which the pin 24 projects as the lever is pivoted about 19, and as this is done the spring presses against the side of the lever and tends to return the same to its normal posi-  
80 tion. The open position of the lever is shown in dotted outline in Fig. 2.

It will be understood that this device is easily manipulated, and that it is almost impossible for the trace to become accidentally disengaged without the break-  
85 ing of the device

If it is desired to remove the trace, it need only be grasped with one hand and one of the buttons 22 depressed with the thumb of that hand, to force back the tongue 16 from the point of the hook. The end of the  
90 tongue 16 seats in the recess 7, and thereby the device is additionally secure against the accidental forcing open of the tongue.

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

1. In a device of the class described comprising a body having a chamber and a hook, said chamber having a slot in the side thereof, a lever pivotally mounted in said chamber, having a tongue extending toward the point of said hook, and an arm lying within said chamber, said  
100 arm having a projection in said slot adapted to be actuated to press said tongue from said hook, means for normally holding said tongue against said hook, and means for attaching the device.

2. A device of the class described, comprising a body  
105 having a chamber, an opening and a hook, said chamber having a slot in the side thereof, an elbow lever pivotally mounted in said chamber, having a tongue extending through said opening toward the point of said hook and an arm lying within said chamber, said arm having a pro-  
110 jection in said slot adapted to be actuated to press said tongue from said hook, a spring adapted to hold said tongue against said hook, and means for attaching the device.

3. A device of the class described, comprising a body  
115 having a chamber with a slot in the side thereof and a

hook, an elbow lever pivotally mounted in said chamber, having a tongue extending normally toward the point of said hook, an arm lying within said chamber and a recess, said chamber having a projection adapted to extend into  
5 said recess when said lever is moved from a normal position, a spring upon said projection adapted to hold said lever in a normal position, said arm having a lateral projection passing through said slot wherewith said arm may be depressed to force said lever from a normal position,  
10 and means for attaching the device.  
4. A device of the class described, comprising a body having a chamber with a slot in the side thereof, and a hook with a recess near the point thereof, an elbow lever

in said chamber, having a tongue extending toward the point of said hook and seating normally in said recess, an arm lying within said chamber, and a projection in said slot adapted to be depressed to throw said lever from a normal position, a spring adapted to hold said lever in said normal position, and means for attaching the device.  
15  
In testimony whereof I have signed my name to this  
20 specification in the presence of two subscribing witnesses.

HOWARD APPLEGATE.

Witnesses:

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A. M. T. FLANDREAU.