

(No Model.)

A. THOMSON.
HAME HOOK.

No. 521,901.

Patented June 26, 1894.

Fig. 1.

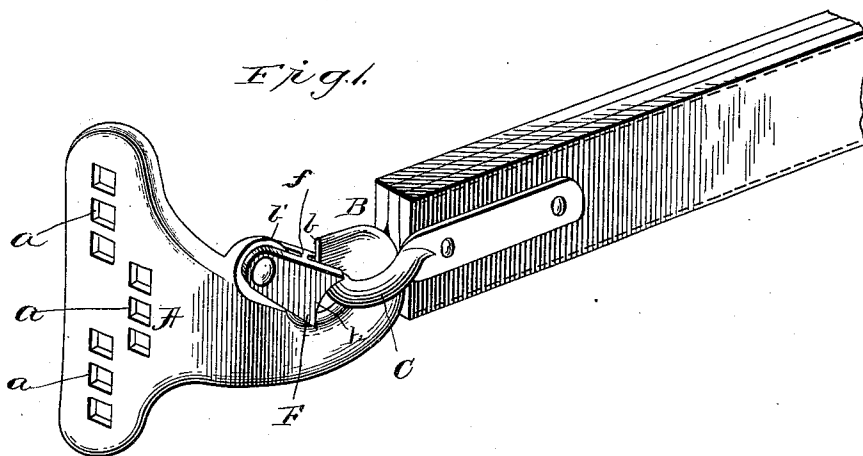


Fig. 2.

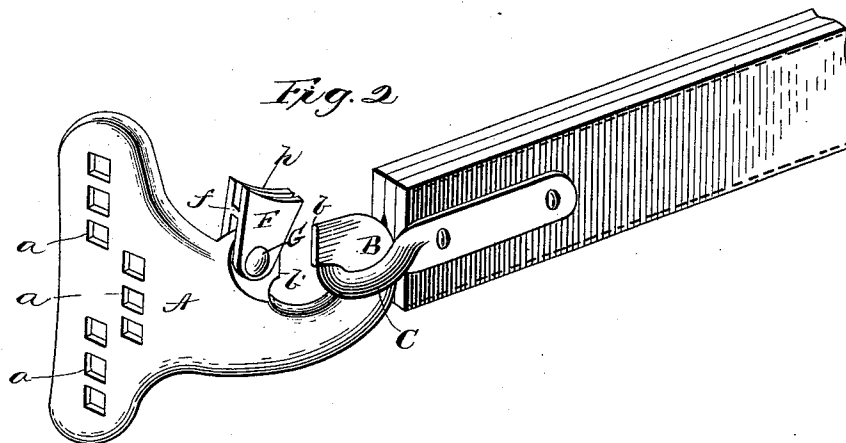


Fig. 3.

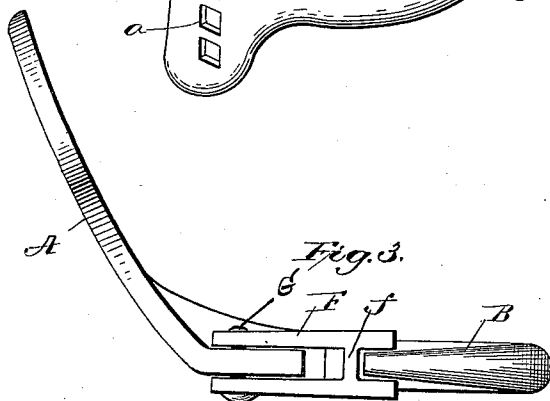
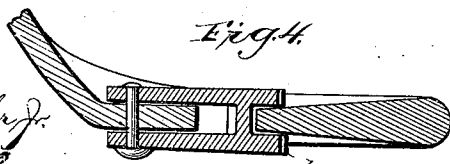


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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HAME-HOOK.

SPECIFICATION forming part of Letters Patent No. 521,901, dated June 26, 1894.

Application filed December 28, 1893. Serial No. 494,982. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER THOMSON, of Fitchburg, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Hame-Hooks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to improvements in devices for attaching the ends of the traces to the hames or to the collar where metallic or other collars adapted for use without hames are employed, the objects of the invention being to provide a strong and simple structure which while permitting the trace to be attached and detached when desired, with the utmost facility, will effectually prevent its accidental detachment, the invention being especially applicable where the traces are loose as in the street car service.

The invention consists in certain novel details of construction and combinations and arrangements of parts, all as will be now described and pointed out particularly in the appended claim.

Referring to the accompanying drawings: Figure 1 is a perspective view of a device constructed in accordance with my invention. Fig. 2 is a similar view with the keeper raised. Fig. 3 is a top plan view. Fig. 4 is a detail section through the hook and keeper showing the construction of the latter for embracing the end of the hook.

Like letters of reference in the several figures indicate the same parts.

I have shown the body A of the device adapted particularly for application to a metallic collar or rigid hames with means, consisting of the series of vertical apertures *a* for adjusting it vertically to vary the angle of draft. The hook portion B over which the eye C in the end of the trace is adapted to be passed, is preferably cast integral with the body A and properly curved to fit around the edge of the shoulder pad, and the extreme end *b* of the hook is brought back in juxtaposition to the portion *b'* of the body, the space between them being just sufficient to allow for the passage of the trace eye, as will

be readily understood. The shape of the opening in which the eye rests is preferably substantially oval and the hook is usually made somewhat flat in cross section so as to secure the maximum strength with the least weight of metal. As thus constructed, it is found that the traces are liable to swing, turn or jolt off the hook, which objection has led to the invention of various forms of locking devices for closing the entrance or escape opening for the trace eye, but all of which devices, so far as I am aware, are either objectionable because of their intricacy and cost, their delicacy or their inefficiency.

With a view to overcoming these objections and providing a device which will not only positively lock the trace eye within the hook, and at the same time, a device which shall be of equal strength with the body of the hook, I provide a double pivoted retainer F, the arms of which embrace the portion *b'* of the body A, and are pivotally connected thereto by a through rivet G. The two side pieces F of this retainer are long enough to embrace the end of the hook, as they are swung down, and preferably also to embrace a portion of the hook shank when in locked position and as the said side pieces are rigidly connected by the central web *f*, it will be seen at once, that any lateral strain upon the keeper is resisted by the hook itself, the whole device so far as any lateral movement is concerned, being practically integral.

As an additional precaution against all possibility of the trace eye escaping from the hook, and more especially to guard against and prevent the trace eye from working the keeper up and so opening the escape channel, I recess the end of the keeper against which the eye strikes when the keeper is turned down as at *h*, thus when the eye is thrown back against the keeper, or over the top of the hook and around the keeper, the portion of the keeper projecting forward below the eye will prevent the keeper from rising. This recessing or cutting away of the keeper, it will be observed, not only prevents all possibility of its being accidentally raised by the trace eye, but also gives a regular conformation to the opening in which the eye works and thus prevents any binding of the parts on each other.

The device is simple in the extreme, strong, cheap to manufacture and apply, and its operation cannot be misunderstood, for the trace eye will not enter without raising the keeper; and as soon as the keeper is released it at once falls by gravity to locked position.

Having thus described my invention, what I claim as new is—

- o In a device such as described, the combination with the body having the extended base for attachment to the collar and having the rearwardly extending hook flattened vertically in cross section and having the relatively narrow entrance opening, of the gravi-

tating keeper F pivotally connected to the body above the level of the hook opening but adjacent to the entrance opening and having the web adapted to enter the same, the end of the keeper being recessed to counteract the tendency of the cooperating member to work the same open said keeper when closed being downwardly inclined; substantially as described.

ALEXANDER THOMSON.

Witnesses:

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