(No Model.)

W. H. HAGLOCK.

TRACE.

No. 590,006. Patented Sept. 14, 1897.

Fig. 1.

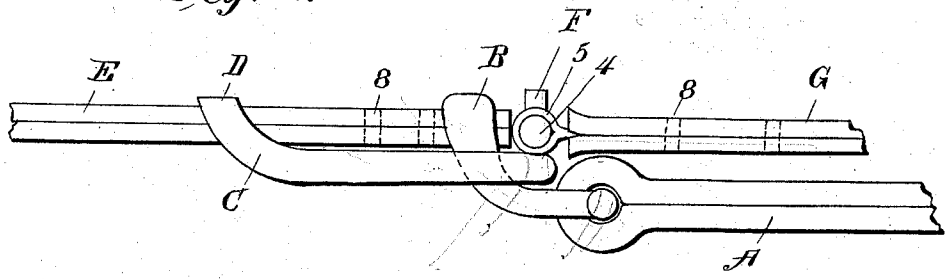


Fig. 2.

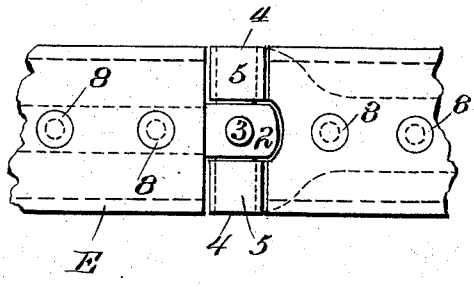
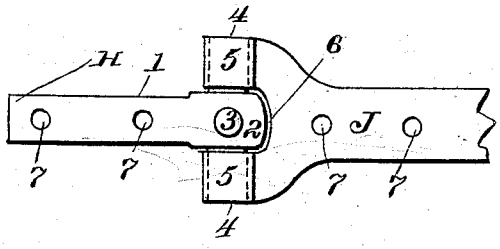


Fig. 3.



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UNITED STATES PATENT OFFICE.

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TRACE.

SPECIFICATION forming part of Letters Patent No. 590,006, dated September 14, 1897.

Application filed May 29, 1897. Serial No. 638,686. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HAGLOCK, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Traces; 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 appertains 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 has reference to a hinged trace, the purpose being to provide a trace with a hinge at one or more of the buckle-holes commonly used and thus render the trace flexible at these hinged localities, so as to dispense in the use of the trace with bending the residue of the latter in and out, as is usual at present, resulting in stretching and finally breaking the stitching.

Another advantage is that the complete flexibility afforded by said hinge renders it much more convenient to place the free end of the trace in the retaining-loop of the hame-tug and to remove the trace from the latter. Again, the said hinge may be utilized in repairing broken traces, the advantage in this behalf being that the insertion of the hinge neither shortens nor thickens the tug, as is unavoidable in the ordinary splice.

It is also practicable in the use of the hinge to insert the buckle-tongue directly through the pivotal portion of the hinge, as shown herein, and thus take the strain of the draft on such tongue entirely off from the leather portion of the tug and sustain the same entirely upon the T portion of the hinge.

I attain the above advantages by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of a trace provided with my invention and in its ordinary relation to the hame-tug and trace-buckle. Fig. 2 is a detail of a section of the portions of a trace united by the hinge. Fig. 3 is a detail of the form of hinge shown in this application and exhibited separately from the residue of the trace.

Similar letters and figures designate the same parts throughout the several views.

Referring to Fig. 1, A is the usual hame-tug, upon the rear end of which is hinged the usual loop B, forming part of the usual adjusting-buckle. C represents the residue of said buckle, and consists of the looped portion D, embracing the main trace E, and the short lateral boss or tongue F, which ordinarily passes through the buckle-holes of the trace and in my invention is further adapted to pass through the aforesaid hinge. G is that portion of the trace forward of the locality of the buckle.

Referring to Fig. 3, H is the T-formed member of the metallic hinge, and consists of the shank 1, adapted to be inserted in the front end of the rear portion E of the trace and with the head 2 projecting centrally beyond the front end of the trace E and provided with the buckle-tongue opening 3. The member H is still further provided with lateral trunnions 4 4, which extend, respectively, through sleeves 5 5, formed on the buckle member J, which latter is adapted to be inserted in the rear end of the forward or billet end G of the trace.

A recess 6 is formed in the rear end of the buckle member J, into which the head 2 of the buckle member H is loosely inserted. The trunnions 4 of the member H being loosely inserted in the sleeve 5 of the member J and the head 2 of member H being free to oscillate in the recess 6 of the member J a complete flexibility of the parts is attained. The insertion of the buckle-tongue F into the opening 3 of said head 2 being also sufficiently loose the hinge effect is at all times complete. Openings 7 7 are formed in the respective members H and J, through which and the contiguous trace are passed the rivets 8, constituting the mode of attaching the respective members of the hinge to the adjacent portions of the trace.

It will be observed that the head 2 being attached to the portion E of the trace which lies to the rear of the buckle-seat and the hame-tug connecting with the buckle C, the tongue F of which is inserted in said head 2, no draft is exerted upon the member J unless the attachment of the buckle is made forward of the hinged joint. The attaching-shanks of the members H and J are sufficiently short to permit of the insertion of any additional

hinge connection at the locality of any adjacent broken-out trace-hole.

The member H may be made of malleable iron and the member J cut out of sheet-steel. The hinge is therefore very cheaply made and is very strong and durable. It can be inserted, in the first instance, in the manufacture of traces, and it can be utilized, as aforesaid, in the case of broken traces without changing the latter from their original length. In addition to this great advantage, in which the seating of the buckle involves much less time and labor than the ordinary splicing, the flexibility afforded to the trace by the presence of this hinge therein avoids crimping and stretching the sides of the trace in the many bends which the latter is otherwise subjected to.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. In combination with a hame-tug A provided with the loop B, the buckle C provided with a looped portion D and the short lateral boss or tongue F, the forward section G of the trace provided with lateral sleeves 5 5 and intermediate recess 6 and the rear portion E of the trace provided centrally with the head 2 adapted to project loosely into said recess 6 and with lateral trunnions 4 4 adapted to extend loosely within the sleeves 5 5 respectively, said head 2 being provided with the opening 3 adapted to receive loosely the tongue F of the buckle C substantially as shown for the purpose described.

2. In combination with the severed portions of a trace, the buckle member J provided with opening 6 and lateral sleeves 5 5, and adapted to be inserted within and riveted to one portion of said trace, and a member H provided with head 2, having buckle-tongue opening 3 and lateral trunnions 4 4, adapted respectively to be inserted within opening 6 and sleeves 5 of member J, and adapted to be inserted within and rigidly attached to the adjacent end of the other portion of said trace, substantially as shown and for the purpose described.

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

WILLIAM H. HAGLOCK.

Witnesses:

JOHN G. MANAHAN,

ISABELLE MANAHAN.