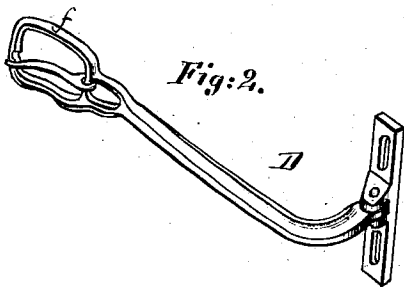
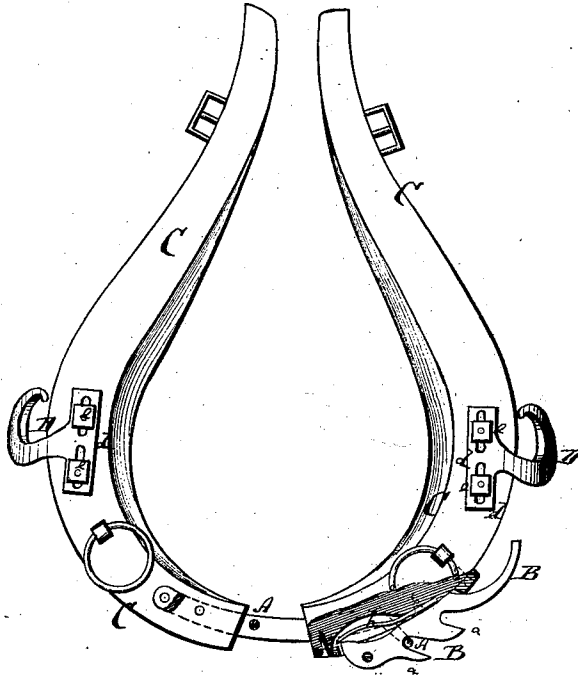


*H.B. Grumbling, Names.*

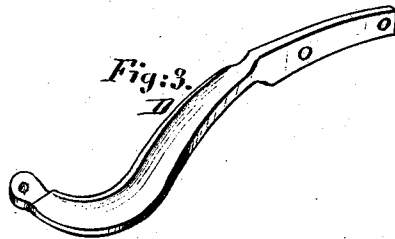
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*Fig:1.*

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*Fig:2.*



*Fig:3.*

Witnesses:

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# United States Patent Office.

HUGH B. GRUMLING. OF GRANT, PENNSYLVANIA.

Letters Patent No. 110,848, dated January 10, 1871; antedated January 6, 1871.

## IMPROVEMENT IN HAMES-FASTENINGS.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, HUGH B. GRUMLING, of Grant, county of Indiana and State of Pennsylvania, have invented a new and useful Improvement in Hames; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a front view, partly in section, of my improved hame.

Figure 2 is a perspective view of a harness-hook attachment for the same.

Figure 3 is a detail perspective view of a separate hook for the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new device for locking the lower ends of hames together and to the collar, and also to a novel adjustable draft-hook attachment for the same.

The invention consists, first, in the use of a pivoted loop, A, and spring lever B, which are, respectively, pivoted to the lower ends of the hames O O, as shown.

The lever B has two or more projecting hooks, a a, in either one of which the loop can be locked to regulate thereby the width of the collar.

A spring, b, acts against one end of the lever to hold the same closed.

The invention consists also in securing the draft-hook D to the faces of the hames and in bending them backward, and in jointing them to reach the traces.

These hooks have slotted shanks d d, which are, by means of screws or bolts e, secured to the hames. The slots permit the hooks to be adjusted vertically.

Fig. 1 represents the draft-hooks adapted for heavy work, and made rigid throughout.

Fig. 2 shows a jointed hook for carriage-harness, with a buckle, f, at the end to secure it to the traces.

Fig. 3 shows the outer arm of a jointed hook, whose end is to be riveted to the traces.

By making the draft-hook adjustable, as described, and pull from the front, a proper center draft, which does not weary the horses, is provided.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The arrangement, with respect to the hames O C and lever B, of the rigid loop A, transversely pivoted and embracing the front and back faces of both hames, as and for the purposes described.

2. A trace-hook, D, having a slotted shank-plate, d, adjusted up and down by screw and nut, as and for the purpose described.

HUGH B. GRUMLING.

Witnesses:

HENRY SEBRING,  
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